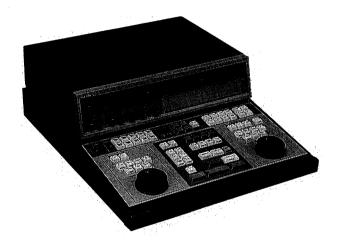# SONY®

EDITING CONTROL UNIT
BVE-600

OPERATION MANUAL
2nd Edition
Serial No. 10161 and Higher

Table of Contents

General Description

The BVE-600 is an editing control unit which allows an accurate editing and is easy to operate. The layout of buttons, grouped by function, allows efficient and smooth editing operation, from data preparation to execution. Even someone with no previous editing experience can easily learn the operation of this unit. With an optional switcher board installed, switcher functions such as wipe, dissolve, etc. are possible.

Features of the BVE-600

Control of three VTRs
The BVE-600 can control two players and one recorder from the control panel. Each VTR select button is illuminated by an LED which lights up when pressed, allowing the operator to see at a glance which VTR is being controlled.

Various kinds of VTRs controllable
The BVE-600 can control any VTR which is equipped with RS-422A 9-pin remote control connector; 1/2-inch VTRs (BVW series VTRs), 3/4-inch VTRs (BVU series VTRs) or 1-inch VTRs (BVH series VTRs).

Two search dials
The two search dials allow independent tape transport control of a recorder and a player without switching them. The edit points can be quickly searched for.

Three time counter displays
Three time counter displays show the time data of three VTRs simultaneously. The data of the VTRs which are controlled by the BVE-600 can be seen at a glance.

Split editing
During insert editing, the audio and video IN points can be set separately, and automatic editing can be performed. Either the audio or video IN points can be used as the reference IN point.

DMC (dynamic motion control) function
When a VTR with the DT (Dynamic Tracking™) function is used, variable speed playback within a range of the DT playback speed (DMC playback) is possible. The speed of DMC playback can be memorized and used for editing.

Controlling an audio mixer
An interface for a Sony MXP-29 audio mixer is built-in. Through this interface, audio signal editing can be controlled together with the video signal.

Two EDIT PULSE contact output ports
Timing pulses can be output to external equipment for synchronized operation.

Features of the Optional Switcher Board BKE-611/612, BKE-621/622

An optional switcher board BKE-611/612 or BKE-621/622 can be mounted in the BVE-600. When it is mounted, the function of the BVE-600 is expanded from a simple player-to-recorder system to a high-level system employing a video switcher.
Two kinds of switcher boards are available according to the signals to be treated as follows. Select the appropriate one for the VTR to be used.
   Composite switcher board: BKE-611 (for NTSC), BKE-612 (for PAL)
   Component/composite switcher board (adapted to both component and composite signals by setting a switch):   BKE-621 (for NTSC), BKE-622 (for PAL)

BKE-611/612 composite switcher board

BKE-621/622 component/composite switcher board

A/B roll editing
An A/B roll edit which edits signals played back by two players is possible.

Editing various kinds of signals
Adding to the signals from two players, a signal supplied by a video camera or other video source, and a background color generated by a built-in background generator can be edited. The hue, chroma and luminance of the background color can be adjusted.

Dissolve and wipe functions
At an edit point, special effects such as dissolve and wipe, can be added. Up to 10 wipe patterns are selectable, and the pattern edge of the selected wipe pattern can be softened or bordered.

Superimpose function
Title characters, telops, etc. can be superimposed on a video signal.

Status display
Time code data or edit data can be displayed on a main monitor.

Built-in black burst generator
A built-in black burst generator supplies a reference signal to the editing system so that it can be operated without an external reference signal.

2

What is Editing?

Edit mode

There are two methods for editing (edit modes), assemble editing and insert editing.

Assemble editing
Video, audio, time code and CTL signals are edited simultaneously. When signals are to be edited scene by scene on a blank tape, this method is recommended.

Insert editing
Video and/or audio signals are edited independently. The specific part of a player's tape is inserted into the recorder's tape by referring to the CTL signals or time code recorded on a recorder's tape. Even if new material is edited on a previously recorded tape in this mode, the continuity of the picture can be kept. Insert editing is useful in the following cases:
- To replace the video or audio signal of a recorded tape.
- To add video signal to a tape which has only audio signals recorded, and vice versa.
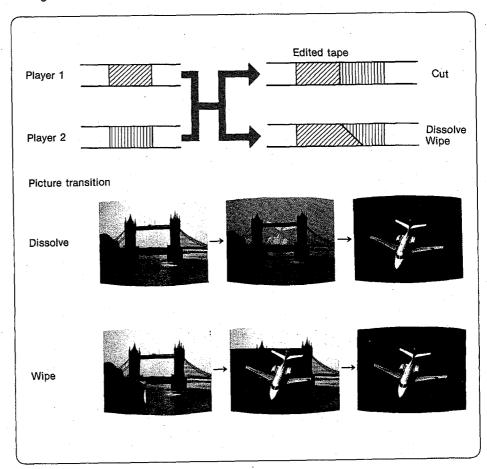
At the edit point of assemble or insert editing, various effects can be added when changing pictures from one to another.

Cut
Instantaneous change from one picture to another.

Dissolve
Gradual transition of one picture into another.
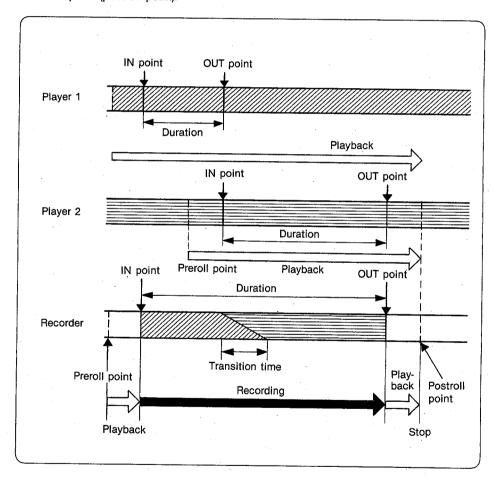
Wipe
A transition from one picture to another using a geometric pattern (wipe pattern) moving across the screen.

When editing using an effect such as dissolve or wipe in the assemble or insert mode, first decide the part of the player's tape which will be recorded on the recorder, and then the part on the recorder where the player's signal is to be recorded. This is called "deciding edit points". There are two edit points; the beginning point (this is called the IN point) and the end point (this is called the OUT point). The period from an IN point to an OUT point is called the duration. You also decide the period within which one picture is changed to another using dissolve or wipe. This is called the transition time.

When all edit data, such as edit points, edit mode, transition time, etc., are decided, the BVE-600 can execute the edit when just one button is pressed. This is called automatic editing.
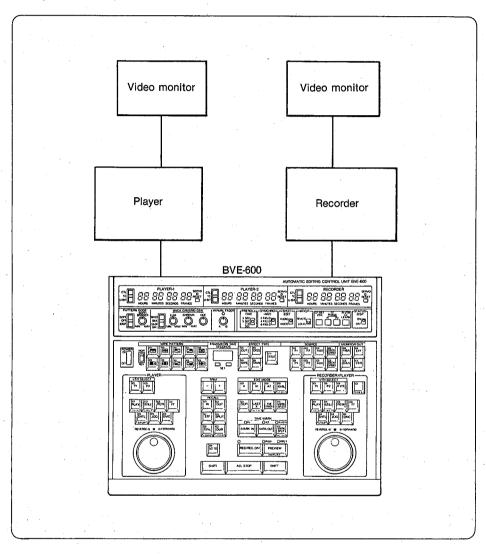
In automatic editing, the recorder and players start playback a little before the IN points (this is called the preroll point), and operate as follows to the point a little after the OUT point (postroll point).

System Configuration
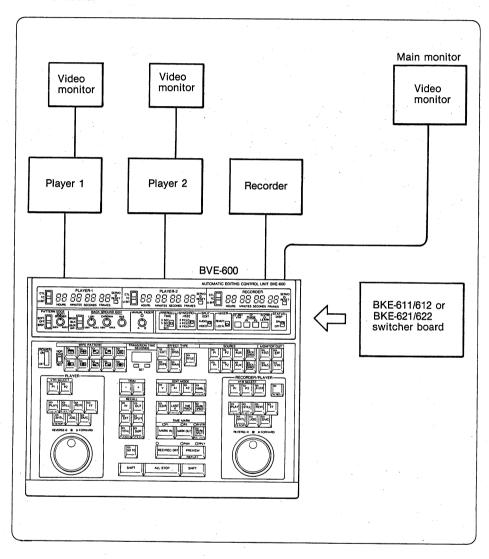
Basic system

A basic system of the BVE-600 controls a player and a recorder. With this system, editing with cut is possible in assemble and insert modes.
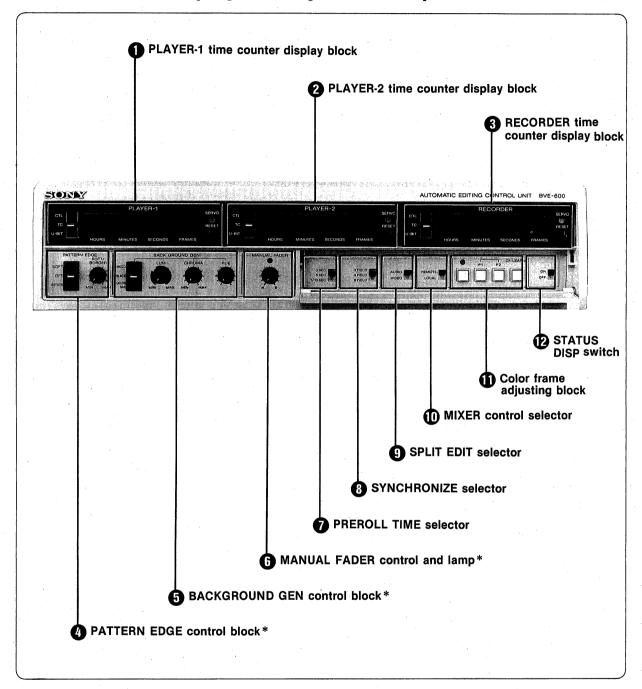
When an optional switcher board BKE-611/612 or BKE-621/622 is mounted in the BVE-600, A/B roll editing will be possible, which controls two players and one recorder. In this system, editing with dissolve and wipe can be carried out in addition to cut editing in assemble and insert modes.

To mount a board into the BVE-600, please refer to the instruction manual furnished with the board.
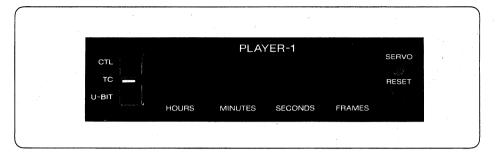
Time Counter Display and System Setup Panel

1 PLAYER-1 time counter display block

2 PLAYER-2 time counter display block

3 RECORDER time counter display block

12 STATUS DISP switch

11 Color frame adjusting block

10 MIXER control selector

9 SPLIT EDIT selector

8 SYNCHRONIZE selector

7 PREROLL TIME selector

6 MANUAL FADER control and lamp*

5 BACKGROUND GEN control block*

4 PATTERN EDGE control block*

* The PATTERN EDGE control block, BACKGROUND GEN
control block and MANUAL FADER control and lamp
function only when the BKE-611/612 or BKE-621/622
switcher board (optional) is mounted in the BVE-600.

1 **PLAYER-1 time counter display block**

```
                    PLAYER-1
    CTL                                    SERVO
    TC  ▬                                  RESET
  U-BIT
          HOURS    MINUTES   SECONDS   FRAMES
```

Tape position and edit data of a VTR connected to the PLAYER 1 REMOTE connector on the connector panel is displayed in unit of HOURS:MINUTES:SECONDS: FRAMES.
When an error occurs, an error message will be displayed. (See page 88.)

CTL/TC/U-BIT (time data) selector
Select the time data shown on the time counter display.
CTL: Tape running time determined by counting the CTL signals recorded on the tape.
TC: Time code.
U-BIT: When the switch is pressed to this position, user bit data is displayed. When the switch is released, it returns to the TC position.
• This selector is used for setting the VTR device constants and RS-232C output mode. (See page 95.)
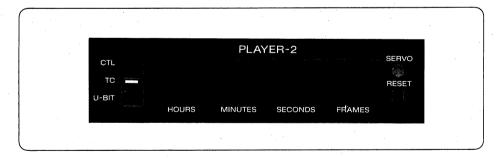
RESET button
Press this button to reset the data on the time counter display to "0" when the CTL/TC/U-BIT selector is set to CTL.

SERVO lamp
Lights when drum and capstan servo of a VTR is locked.

2 **PLAYER-2 time counter display block**

```
                    PLAYER-2
    CTL                                    SERVO
    TC  ▬                                  RESET
  U-BIT
          HOURS    MINUTES   SECONDS   FRAMES
```

Tape position and edit data of a VTR connected to the PLAYER 2 REMOTE connector on the connector panel is displayed. When an error occurs, an error message will be displayed. (See page 88.)
The displayed data and the functions of the CTL/TC/U-BIT selector, RESET button and SERVO lamp are the same as those of the PLAYER-1 time counter display block.
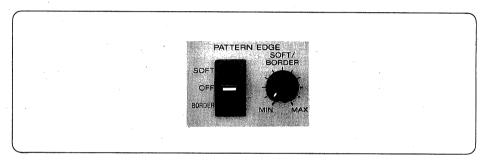
❸ RECORDER time counter display block

Tape position and edit data of a VTR connected to the RECORDER REMOTE connector on the connector panel is displayed. When an error occurs, an error message will be displayed. (See page 87.)
The displayed data and the functions of the CTL/TC/U-BIT selector, RESET button and SERVO lamp are the same as those of the PLAYER-1 time counter display block.

❹ PATTERN EDGE control block (see page 66)

Control the pattern edge of a wipe pattern.

SOFT/OFF/BORDER selector
SOFT: Pattern edge is softened. The softness is controlled by the SOFT/BORDER control.
OFF: Sharp pattern edge is obtained.
BORDER: A border is added to the edge of a wipe pattern.
   The width of the border is adjusted by the SOFT/BORDER control, and the color is adjusted by the BACKGROUND GEN control block.

SOFT/BORDER control
Adjusts the softness of the edge of a wipe pattern when the SOFT/OFF/BORDER selector is set to SOFT.
When the selector is set to BORDER, this control adjusts the width of the border of a wipe pattern.

10

❺ BACKGROUND GEN (generator) control block (see pages 66, 67)

Adjusts the signals generated by a built-in background generator. Press the BACK GRND button in the SOURCE select block on the control panel, and use this block to adjust the color of the background. When a border is added to the edge of a wipe pattern, the color of the border can also be adjusted.

BKGD (background)/BLACK/COLOR BAR selector
Selects the signal for the background when the BACK GRND button in the SOURCE select block on the control panel is pressed.
BKGD: Signal generated by a built-in background generator. The color is adjusted by the LUM, CHROMA and HUE controls.
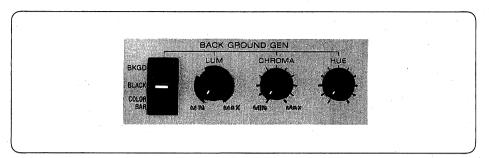**BLACK:** The background color is black.
COLOR BAR: Color bar signals generated by a built-in color bar generator.

LUM (luminance) control
Adjusts the brightness of the background when the BKGD/BLACK/COLOR BAR selector is set to BKGD.
When a border is added to the edge of the wipe pattern, the brightness of the border is also adjusted.

CHROMA control
Adjusts the chroma level of the background color when the BKGD/BLACK/COLOR BAR selector is set to BKGD.
When a border is added to the edge of the wipe pattern, the chroma level of the border is also adjusted.

HUE control
Adjusts the hue of the background color when the BKGD/BLACK/COLOR BAR selector is set to BKGD.
When a border is added to the edge of the wipe pattern, the hue of the border is also adjusted.

Note
The colors of the background and the border are complementary. They cannot be adjusted independently.

6 MANUAL FADER **control and lamp** (see page 59)

Use this control to change one picture to another with wipe or dissolve manually.
When the MAN button in the EFFECT TYPE select block on the control panel is
pressed, the lamp starts blinking. While this lamp is blinking, the MANUAL FADER
control is activated to change pictures manually.
When the control is turned clockwise, a picture selected by a button on the A bus in
the SOURCE select block changes to a picture selected by a button on the B bus;
when turned counterclockwise, a picture selected by a button on the B bus changes
to a picture selected by a button on the A bus.

7 PREROLL TIME **selector** (see page 39)
Selects preroll time.
3 SEC: 3 seconds.
5 SEC: 5 seconds.
7/10SEC: 7 or 10 seconds (selectable with the DIP switch on the connector panel.
    Factory set: 7 SEC.)

8 SYNCHRONIZE **selector**
Selects the allowable amount of shift of signals for color framing (editing accuracy)
when color frame phases of VTRs to be used for editing do not match.
2 FIELD: In 2 field unit
4 FIELD: In 4 field unit
8 FIELD: In 4 field unit for the NTSC color system; in 8 field unit for the PAL color
    system. (Resetting is possible with an internal switch.)
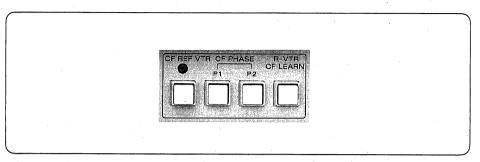
9 SPLIT EDIT **selector** (see page 80)
Selects one signal on which the split edit data will be based.
AUDIO: For audio-based split editing.
VIDEO: For video-based split editing.

10 MIXER **control selector**
Selects the control mode of a Sony MXP-29 audio mixer.
REMOTE: The MXP-29 is controlled by the BVE-600.
LOCAL: The MXP-29 is not controlled by the BVE-600.

⑪ Color frame adjusting block (see page 85)

CF REF VTR (color frame reference VTR) button and lamp
Press to make the VTR, designated by the system setup, detect and lock the color frame according to the setting of its own. When the button is pressed, the lamp will light. When this button is pressed while the SHIFT button is being pressed, the condition of the color frame shift is displayed on the time counter display.

CF PHASE (color frame phase adjustment) buttons
Press to match the color frame information of a video signal to the color frame of the editing system by shifting the lock position of the time code when a video signal of a player does not correspond with the color frame information of the time code.
Every time the P1 or P2 button is pressed, the phase of the color frame of player 1 or player 2 is shifted by one frame respectively.
When the P1 or P2 button is pressed while the SHIFT button is being pressed, the condition before pressing the P1 or P2 button is retrieved.

R·VTR CF LEARN (recorder color frame learn) button
When a recorder has a color frame detect function, press this button, and the recorder temporarily enters playback mode before preroll or recording, and the phase of the reference signal and that of the video signal recorded on the tape are matched. At the same time, the BVE-600 reads the time code of the recorder, and makes the color frame of the system counter match that of the time code of the recorder. The BVE-600 will then always lock the recorder in this phase.
When this button is pressed while the SHIFT button is being pressed, the phase is moved by 1 frame.
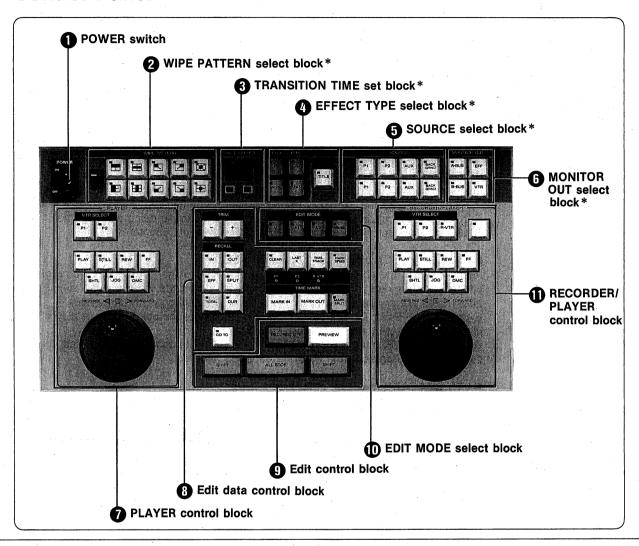
⑫ STATUS DISP (display) switch (see page 39)
Selects whether tape position and edit data of the recorder and players is displayed on a video monitor connected to the MONITOR OUT connector on the connector panel.

Control Panel

1 **POWER switch**

2 **WIPE PATTERN select block***

3 **TRANSITION TIME set block***

4 **EFFECT TYPE select block***

5 **SOURCE select block***

6 **MONITOR OUT select block***

11 **RECORDER/ PLAYER control block**

10 **EDIT MODE select block**

9 **Edit control block**

8 **Edit data control block**

7 **PLAYER control block**
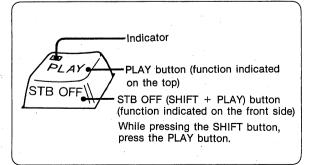
When a button on the control panel is pressed, the function indicated on the button is activated, and the indicator on the button lights. When a button having indication on the front side is pressed together with the SHIFT button, the function indicated on the front side is activated. In this manual, the function on the top of the button and that on the front side are indicated as shown below.
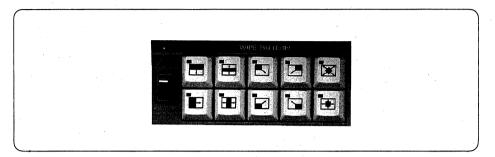
*The WIPE PATTERN select block, TRANSITION TIME set block, EFFECT TYPE select block, SOURCE select block and MONITOR OUT select block function only when the BKE-611/612 or BKE-621/622 switcher board (optional) is mounted in the BVE-600.

Indicator

PLAY button (function indicated on the top)

STB OFF (SHIFT + PLAY) button (function indicated on the front side)

While pressing the SHIFT button, press the PLAY button.

1 POWER switch
Turn the power of the BVE-600 on and off.

2 WIPE PATTERN select block (see page 66)

NORMAL/REVERSE selector
Selects the wiping direction.
NORMAL: Wiping in the direction of the arrow on the WIPE PATTERN select buttons.
REVERSE: Wiping in the opposite direction of the arrow on the WIPE PATTERN
   select buttons.
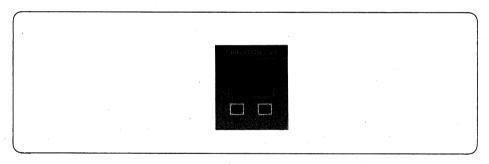
WIPE PATTERN select buttons
Select a wipe pattern by pressing a button. The indicator on the pressed button lights.

3 TRANSITION TIME set block

The time to change a picture to another with wipe or dissolve (transition time) is set
in 0.1 second units from 0.0 second to 9.9 seconds.

Notes
• If the transition time is set at 0.0 second, a picture selected by a button on the A
 bus in the SOURCE select block instantaneously changes to a picture selected by a
  button on the B bus.
• On the monitor screen, the pictures changes in the period shorter than the
  designated transition time. It is recommended to designate the long period in some
  degree.

TRANSITION TIME display
Shows the transition time in second.

SET buttons
Press to set the transition time. Every time the button is pressed, the data in the
TRANSITION TIME display increases by one.
When the SHIFT button and this button are pressed simultaneously, the data
decreases by one.

❹ EFFECT TYPE select block

Selects an effect used to change pictures at the edit point. Press the desired button, and the indicator on the button lights.

CUT button
A picture selected by a button on the A bus in the SOURCE select block is changed instantaneously.

DISS (dissolve) button
A picture selected by a button on the A bus in the SOURCE select block gradually changes to a picture selected by a button on the B bus by mixing.

WIPE button
A picture selected by a button on the A bus in the SOURCE select block changes to a picture selected by a button on the B bus with a pattern selected by the WIPE PATTERN select buttons.

MAN (manual) button (see page 59)
Press this button after pressing the DISS or WIPE button for manual operation of wipe or dissolve. The MANUAL FADER lamp starts blinking, and the MANUAL FADER control can change pictures with wipe or dissolve manually. To release the manual mode, press the other button in the EFFECT TYPE select block.
• When the CUT button is pressed, this button does not function.
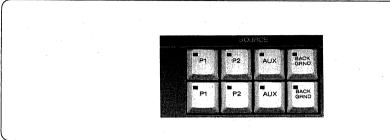
TITLE button (see page 84)
Press this button to superimpose the signal connected to the TITLE IN connector on the connector panel. Pressing this button again erases the superimposed signal. The superimposed signal appears in white.
When this button is pressed while the SHIFT button is being pressed, the system setup mode is obtained. (See page 90.)

5 **SOURCE select block**

Select signals used for editing. When wipe or dissolve is selected by a button in the EFFECT TYPE select block, a picture selected by a button on the A bus changes to a picture selected by a button on the B bus.
When the CUT button in the EFFECT TYPE select block is pressed, select a picture by a button on the A bus.

P1 (player 1) button
Selects a signal connected to the VIDEO IN-PLAYER1 connector on the connector panel.

P2 (player 2) button
Selects a signal connected to the VIDEO IN-PLAYER2 connector on the connector panel.

AUX (auxiliary) button
Selects a signal connected to the VIDEO IN-AUX connector on the connector panel.
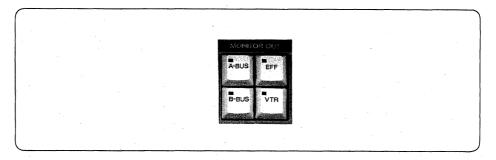
BACK GRND (background) button
Selects a signal generated by a built-in background generator. The type of signal and the color is selected by the BACKGROUND GEN control block.

❻ MONITOR OUT select block (see page 63)

Selects an output signal for the MONITOR OUT connector on the connector panel.

A-BUS button
A signal selected by a button on the A bus in the SOURCE select block.

B-BUS button
A signal selected by a button on the B bus in the SOURCE select block.

EFF (effects) button
A signal edited with the effect selected by the EFFECT TYPE select block using the signals selected by the buttons on the A and B buses in the SOURCE select block (the same signal as that of the VIDEO OUT connector).
When the softness of a wipe pattern, the width and color of the border of a wipe pattern or the color of background is to be adjusted, press this button, and the adjustment can be carried out by monitoring the master monitor screen.
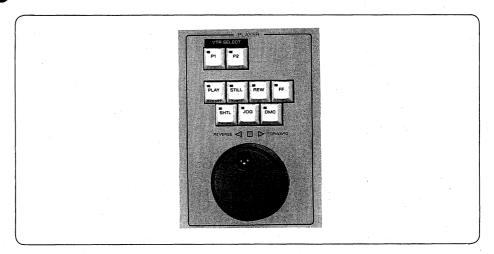
VTR button
A signal of a VTR selected by the VTR SELECT buttons in the PLAYER control block or PLAYER/RECORDER control block.
In preview or automatic editing, this mode is automatically selected, and the preview or edited signal can be monitored from the preroll point to the postroll point.

❼ PLAYER control block (see page 40)

Remotely controls VTRs connected to the PLAYER 1 REMOTE connector or PLAYER 2 REMOTE connector on the connector panel. Press a button, and the indicator on the button lights.

VTR SELECT buttons
Select a VTR to be controlled.
P1 (player 1): A VTR connected to the PLAYER 1 REMOTE connector is selected.
P2 (player 2): A VTR connected to the PLAYER 2 REMOTE connector is selected.

Operation buttons

PLAY (STB OFF) button
PLAY: Press to play back a tape.
STB OFF (SHIFT + PLAY) (standby off): While pressing the SHIFT button, press this button in STOP mode, and a VTR is set in standby off mode. In standby off mode, the indicator does not light nor blink.

STILL (EJECT) button
STILL: Press to obtain a still picture.
EJECT (SHIFT + STILL): While pressing the SHIFT, press this button, and a cassette is ejected.

REW (rewind) button
Press to rewind a tape.

FF (fast forward) button
Press to run a tape rapidly.

SHTL (STOP) button
SHTL (shuttle)*: Press to set a VTR in shuttle mode.
Rotate the search dial and stop it at the desired position, and the tape runs at the speed corresponding to the position of the dial.
STOP (SHIFT + SHTL): While pressing the SHIFT button, press this button, and a tape stops.

JOG button*
Press to set the VTR in jog mode. Rotate the search dial, and the playback speed changes according to the speed of dial rotation.

DMC (Dynamic motion control) button* (see page 82)
Press this button to set a VTR with a DT (dynamic tracking) function in DMC playback mode. Rotate the search dial, and the tape speed can be controlled in shuttle mode at a speed within the range of DT playback.

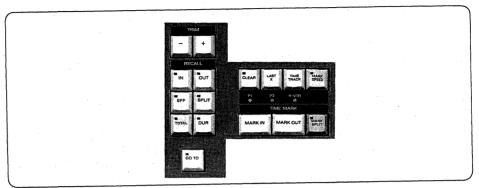**Search dial* and direction lamps** (see page 42)
Rotate the dial to search for an edit point.
Clockwise rotation plays the tape in the forward direction, and the FORWARD lamp lights. Counterclockwise rotation plays the tape in the reverse direction, and the REVERSE lamp lights.

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* The SHTL button, JOG button, DMC button and search dial are used for the system setup operation. (See pages 90 and 95.)

8 **Edit data control block** (see page 68)

TRIM buttons (see page 70)
Press to modify the edit data shown on the time counter display. The blinking data can be modified.
Every time the — button is pressed, the value to be modified decreases by one.
Every time the + button is pressed, the value to be modified increases by one.

IN button
Press to display the IN point data on the time counter displays. When no data is set, "– – – –" is displayed.

OUT button
Press to display the OUT point data on the time counter displays. When no data is set, "– – – –" is displayed.

EFF (effect) button
When wipe or dissolve is selected, press to display the effect point data (the point from where the effect starts) on the PLAYER 1 and PLAYER 2 time counter displays; the OUT point of a player selected by a button on the A bus in the SOURCE select block and the IN point of a player selected by a button on the B bus. On the RECORDER time counter display, the time data of the recorder from where the effect starts is displayed.
When cut or manual effect operation is selected, "– – – –" is displayed.

SPLIT button
Press to display the split data on the time counter display of the VTR on which the split edit has been designated.

TOTAL (START) button
TOTAL: Press to display the total period of executed edits on the RECORDER time counter display. On player time counter displays, "– – – –" are displayed.
START (SHIFT + TOTAL): While pressing the SHIFT button, press this button and the show start time is displayed on the RECORDER time counter display. When the show start time has not been set, "– – – –" is displayed. On player time counter displays, "– – – –" are displayed.

20

DUR (SPEED) button

DUR (duration): Press to display duration. When the OUT point has not been set, duration is displayed if it can be calculated from the other edit point data. If it cannot be calculated, "– -- -- --" is displayed.

SPEED (SHIFT + DUR): While pressing the SHIFT button, press this button when the MARK SPEED indicator is lit, and the DMC playback speed is displayed in percent on the PLAYER 1 or PLAYER 2 time counter display.

GO TO button (see page 71)

After pressing one of the RECALL buttons*, press this button, and the designated point is cued up.

When only this button is pressed without pressing the RECALL button, the IN point of a VTR whose lamp in the TIME MARK block is lit is cued up.

P1/P2/R-VTR (player 1/player 2/recorder) lamps

A lamp corresponding to a VTR last selected by the VTR SELECT buttons lights. The button pressed last always makes the corresponding lamp light. The data of the VTR corresponding to the lamp can be set or modified.

MARK IN (IN point set) button (see page 68)

Press this button, and the data shown on the time counter display is registered as the IN point.

MARK OUT (OUT point set) button (see page 68)

Press this button, and the data shown on the time counter display is registered as the OUT point.

MARK SPLIT (MK START)button

MARK SPLIT (split edit point set): Press to set the split edit point. The data can be set on a player selected by a button on the A bus in the SOURCE select block or on a recorder, and the data can be set at the IN point only. (See page 80.)

MK START (SHIFT + MARK SPLIT) (show start time set): While pressing the SHIFT button, press this button, and the current time data shown on the RECORDER time counter display is set as the show start time. (See page 73.)

CLEAR button (see page 72)

Press to clear edit data.
Press one of the RECALL buttons to designate the data to be cleared, and press this button.

LAST X (LAST ED) button

LAST X: Press to retrieve the edit data prior to that set or modified last.

LAST ED (SHIFT + LAST X) (last edit): While pressing the SHIFT button, press this button after editing, and the data of the last executed edit is recalled.

When both buttons are pressed after preview, the edit data prior to the preview executed last is retrieved.
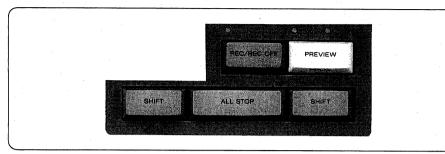
TIME TRACK button (see page 87)

Press to revise the IN point of the player to bring it in line with a recorder IN point that has been changed or corrected (match frame).

MARK SPEED button (see page 82)

In DMC playback, press this button while the tape is running, and the tape speed when the button is pressed is set as the initial speed of DMC playback in editing.

---

* IN, OUT, EFF, START (SHIFT + TOTAL) or SPLIT button

21

9 Edit control block

REC/REC OFF (auto edit start/stop) button and lamp
Press to start automatic editing. The lamp above the button lights, and the designated VTRs execute editing in the designated mode.
When the button is pressed during editing, the point where the button was pressed is set as the OUT point, and all VTRs stop.
• When an edit is finished, the OUT points of the executed edit are automatically set as the IN points of the next edit.

PVW (preview) lamp
Lights during preview.

RPLY (replay) lamp
Lights during replay.

PREVIEW (REPLAY) button
PREVIEW: Press to rehearse an edit (preview). During preview, the PVW lamp is lit. (See pages 50 and 62.)
REPLAY (SHIFT + PREVIEW): After editing, while pressing the SHIFT button, press this button, and the edited part can be reviewed (replay). During replay, the RPLY lamp is lit. (See pages 52 and 62.)

ALL STOP button
Press to stop all VTRs being operated. All VTRs are in STOP mode.
While pressing the SHIFT button, press this button, and all VTRs are set in standby off (all standby off) mode. If the VTRs are in automatic control mode, they are set to STOP mode.
• When the button is pressed during editing, all VTRs stop, but the OUT points are not set. The edit data of an executed edit remains.
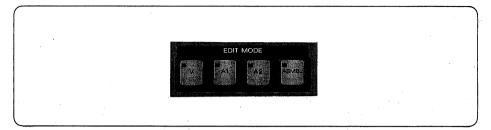
SHIFT buttons
To activate the function indicated on the front side of a button, press the button to be activated while pressing this button. The left and right buttons have the same function.

⑩ EDIT MODE select block (see pages 45, 48 and 57.)

Selects the edit mode. If no mode is selected, indicators on all buttons blink.
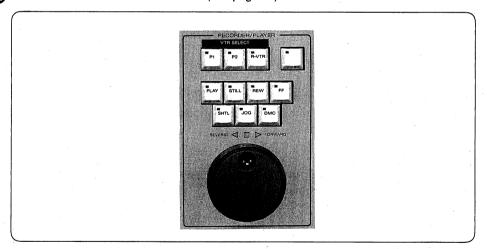
V (video), A1 (audio channel 1), A2 (audio channel 2) buttons
Press to select insert editing.
Press the V button to edit a video signal, the A1 button to edit an audio channel 1 signal, and the A2 button to edit an audio channel 2 signal. The indicators on the pressed buttons light to show the selected signals. When the button is pressed again, the indicator goes out.

ASMBL (1ST EDIT) button
ASMBL (assemble): Press to select assemble editing after confirming that all indicators on the insert buttons are blinking. To release assemble edit mode, press the ASMBL button again, or one of the insert buttons.
  • If one of the insert indicators is lit, assemble edit cannot be selected by pressing the ASMBL button. Press the insert button whose indicator is lit, and press the ASMBL button.
1ST EDIT (SHIFT + ASMBL) (first edit): While pressing the SHIFT button, press this button, and the assemble editing can start on a new tape on which no CTL signal is recorded. This is called first edit. The first edit function is activated only when an optional switcher board BKE-611/612 or BKE-621/622 is inserted. (See page 75.)

⑪ RECORDER/PLAYER control block (see page 40)

The buttons other than those as follows have the same function as those of the buttons in the PLAYER control block.

R-VTR (recorder) button
Press to select a VTR connected to the RECORDER REMOTE(9P) connector on the connector panel.
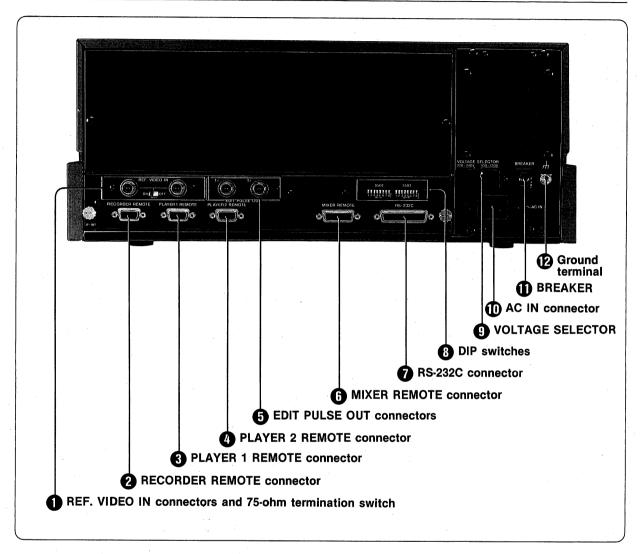
R-REC (record) button
While pressing the SHIFT button, press this button when the R-VTR button of the VTR SELECT buttons is pressed, and the recorder is set in record mode.

23

Connector Panel

⑫ Ground terminal
⑪ BREAKER
⑩ AC IN connector
⑨ VOLTAGE SELECTOR
⑧ DIP switches
⑦ RS-232C connector
⑥ MIXER REMOTE connector
⑤ EDIT PULSE OUT connectors
④ PLAYER 2 REMOTE connector
③ PLAYER 1 REMOTE connector
② RECORDER REMOTE connector
① REF. VIDEO IN connectors and 75-ohm termination switch

① REF. VIDEO IN (reference video signal input) connectors (BNC type) **and 75-ohm termination switch**
Connect an external reference signal to one of these connectors.
The input signal is directly looped-through to the other connector. To supply the same reference signal to other equipment in the editing system, supply the reference signal to the reference input of the equipment being used.
When only one of the connectors is used, set the 75-ohm termination switch to ON. When both connectors are used, set the switch to OFF.
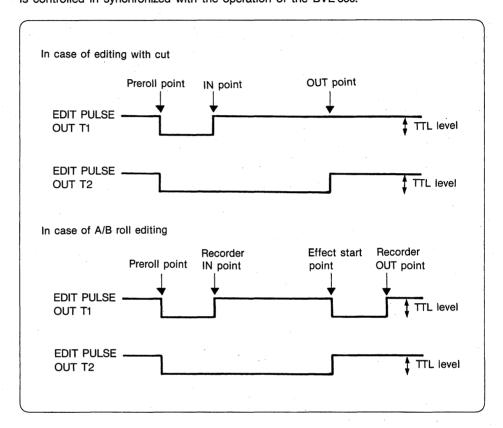
② RECORDER REMOTE connector (9-pin)
Connect to the REMOTE1 (9P) connector on a VTR to be used as a recorder. The VTR can then be controlled by the BVE-600.

③ PLAYER 1 REMOTE connector (9-pin)
Connect to the REMOTE1 (9P) connector on a VTR to be used as a player. The VTR can then be controlled by the BVE-600.

24

4 PLAYER 2 REMOTE connector (9-pin)
Connect to the REMOTE1 (9P) connector on a VTR to be used as a player. The VTR
can then be controlled by the BVE-600.

5 EDIT PULSE OUT connectors (BNC type)
While preview or automatic editing is executed, pulse signals are output at the preroll
point and edit points. Connect to the pulse input connector on the equipment which
is controlled in synchronized with the operation of the BVE-600.

In case of editing with cut

Preroll point   IN point   OUT point

EDIT PULSE
OUT T1   TTL level

EDIT PULSE
OUT T2   TTL level

In case of A/B roll editing

                 Recorder   Effect start   Recorder
Preroll point   IN point   point   OUT point

EDIT PULSE
OUT T1   TTL level

EDIT PULSE
OUT T2   TTL level

6 MIXER REMOTE connector (15 pin)
Connect to the REMOTE connector on a Sony MXP-29 audio mixer to control the
mixer with the BVE-600.

7 RS-232C connector (25-pin)
Connect a microcomputer, TTY, etc. through the RS-232C interface. Then the edit data
can be transferred to the connected equipment. When an edit is finished, the data of
the edit is sent to the connected equipment.

8 **DIP switches** (see page 89)
Switches for system setup. At the factory, all switches are set to the upper position (standard setting).

Left switches (S502)

No.	Function	Switch position
1	Buzzer: Selects whether or not the buzzer sounds when data is set or an error occurs.	Upper: ON Lower: OFF
2	Preroll time: Selects the preroll time when the PREROLL TIME selector is set to 7/10 SEC.	Upper: 7 SEC Lower: 10 SEC
3	Output from the VIDEO OUT connector of the recorder in preview: Selects either the playback signal of a recorder or the E-to-E mode signal of the playback signal between the IN and OUT points in preview.	Upper: Playback signal Lower: E-to-E mode signal*
4	Output from the MONITOR OUT connector: Selects either the signal of the VTR selected by the VTR SELECT buttons or only the signal of the recorder.	Upper: A signal selected by the VTR SELECT buttons Lower: A signal of a recorder
5	Edit point definitions	Be sure to set to the upper position.
6	Edit data format: Selects the format of edit data output from the RS-232C connector.	Upper: BVE-5000 Lower: CMX
7	Preview: Selects whether or not the OUT and EFF previews are inhibited.	Upper: Not inhibited Lower: Inhibited
8	EEPROM setting: Selects whether the content of the EEPROM is reset to the factory set value when the power is turned on or not.	Upper: Not reset Lower: Reset**

* To monitor the preview on a video monitor connected to the recorder, set to the lower position.
** After resetting, be sure to return the switch to the upper position. Or the unit is automatically reset.

Right switches (S503)

No.	Function	Switch position
1	Audio muting: Selects whether or not the audio signal is muted during preview or editing.	Upper: Muted Lower: Not muted
2	Selection of effects: Selects whether or not the effects such as DISSOLVE or WIPE can be executed without inserting an optional switcher board. Use this switch to execute the A/B roll editing using an external switcher, for example.	Upper: Only CUT. Lower: DISS and WIPE can be designated as an effect type.
3	Edit pulse mode: Selects the timing of edit pulses output from the EDIT PULSE OUT connectors.	Upper: Mode 1 Lower: Mode 2*
4	Not used.	
5	Not used.	
6	Not used.	
7	Not used.	
8	Not used.	
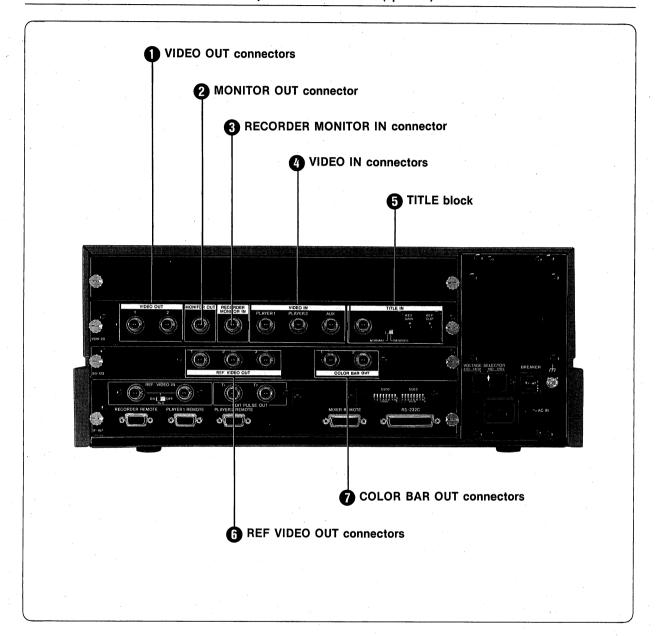
* If the freeze function of the BVU-900/950 is to be used, set the switch to the lower position. For details, refer to the maintenance manual.

❾ VOLTAGE SELECTOR

Set the operating voltage of the BVE-600. The voltage is set at the factory to the appropriate voltage for the area the BVE-600 is to be used. To change the voltage, refer to the maintenance manual.

❿ AC IN connector

Connect to an AC power source with the supplied AC power cord.

⓫ BREAKER

⓬ Ground terminal

Connector panel of the BKE-611/612 composite switcher board (optional)

❶ VIDEO OUT connectors

❷ MONITOR OUT connector

❸ RECORDER MONITOR IN connector

❹ VIDEO IN connectors

❺ TITLE block

VIDEO OUT   MONITOR OUT   RECORDER   VIDEO IN   TITLE IN
                            MONITOR IN
  1   2   PLAYER 1 PLAYER 2 AUX   KEY   KEY
                                                                          GAIN CLIP
VSW-20   NORMAL REVERSE

REF VIDEO OUT   COLOR BAR OUT

REF VIDEO IN   DIT PULSE OUT   VOLTAGE SELECTOR   BREAKER
        ON   OFF   220-240V 100-120V
SG-123   75Ω
RECORDER REMOTE PLAYER 1 REMOTE PLAYER 2 REMOTE   MIXER REMOTE   RS-232C   ~ AC IN
IF-167   S502 S503

❼ COLOR BAR OUT connectors

❻ REF VIDEO OUT connectors

❶ VIDEO OUT connectors (BNC type)
The edited video signal is output (program out). Connect to the video input connector on the recorder.

❷ MONITOR OUT connector (BNC type)
The video signal selected by the buttons in the MONITOR OUT select block on the control panel. Connect to the video input connector on a video monitor.

28

❸ RECORDER MONITOR IN connector (BNC type)
Connect to the video output connector on the recorder. The connected signal is output from the MONITOR OUT connector. While preview or automatic editing is executed, the signal being rehearsed or being recorded on the recorder can be monitored on the main monitor.

❹ VIDEO IN connectors (BNC type)
Connect video signals used for editing.
Connect video signals of the player 1 and player 2 to the PLAYER1 and PLAYER2 connectors respectively.
To the AUX (auxiliary) connector, a video signal such as a signal from a video camera can be connected.

❺ TITLE block (see page 84)

TITLE IN connector (BNC type)
Connect a video signal to be superimposed such as title characters, telops, etc.

NORMAL/REVERSE selector
Set according to the signal picked up by a camera for superimposing.
NORMAL: When superimposing white letters against a black background.
REVERSE: When superimposing black letters against a white background.

KEY GAIN control
Adjusts the signal level to be superimposed.

KEY CLIP control
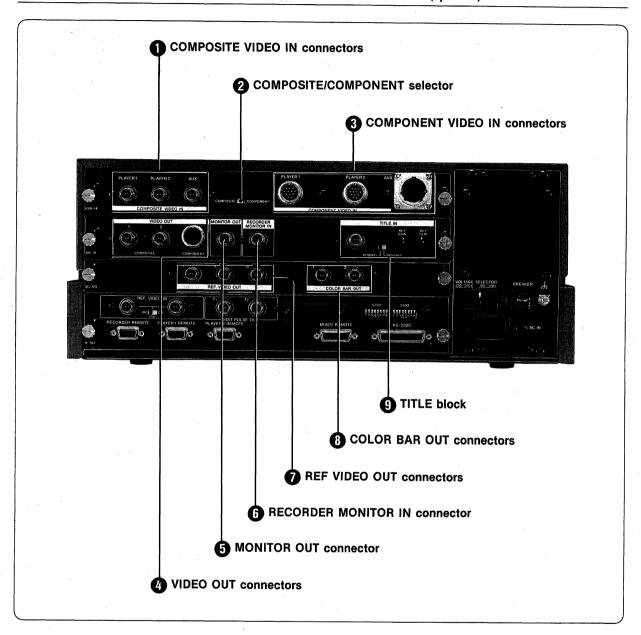Adjusts the clip level of the signal to be superimposed.

❻ REF VIDEO OUT connectors (BNC type)
A reference signal generated by the built-in black burst generator is output. Connect to the reference signal input connector on a VTR.

❼ COLOR BAR OUT connectors (BNC type)
Color bar signals generated by the built-in color bar generator are output.

Connector panel of a component/composite switcher board BKE-621/622 (optional)

❶ COMPOSITE VIDEO IN connectors

❷ COMPOSITE/COMPONENT selector

❸ COMPONENT VIDEO IN connectors

❾ TITLE block

❽ COLOR BAR OUT connectors

❼ REF VIDEO OUT connectors

❻ RECORDER MONITOR IN connector

❺ MONITOR OUT connector

❹ VIDEO OUT connectors

❶ COMPOSITE VIDEO IN connectors (BNC type)
Connect composite video signals. To use the signal connected to these connectors for editing, set the COMPOSITE/COMPONENT selector to COMPOSITE.
The PLAYER1, PLAYER2 and AUX connectors have the same function as those on the BKE-611/612.

② COMPOSITE/COMPONENT selector

COMPOSITE: Set to this position when signals connected to the COMPOSITE VIDEO IN connectors are used for editing.
- No signal is output from the COMPONENT VIDEO OUT connectors.

COMPONENT: Set to this position when signals connected to the COMPONENT VIDEO IN connectors are used for editing.
- A composite signal which is obtained by encoding the component signals are output from the COMPOSITE VIDEO OUT connectors.

③ COMPONENT VIDEO IN connectors

Connect component video signals. To use the signals connected to these connectors used for editing, set the COMPOSITE/COMPONENT selector to COMPONENT.
Connect component VTRs (BVW series VTRs) used as a player 1 and player 2, to the PLAYER1 and PLAYER2 connectors (12-pin multi) respectively. To the AUX connector (26-pin multi), connect a video camera which can supply a component video signal, such as a BVP-5/5P, a BVP-7/7P, etc.

④ VIDEO OUT connectors

The edited video signals are output (program out).
When a composite video signal is used for editing, signals are output from the COMPOSITE 1 and 2 connectors (BNC type). Connect to the composite video input connectors on the recorder.
When component video signals are used for editing, component signals are output from the COMPONENT connectors (12-pin multi), and composite signals are output from the COMPOSITE connectors (BNC type). Connect to the component video input connectors or composite video input connectors on the appropriate VTR.

⑤ MONITOR OUT connector (BNC type)

The same function as the MONITOR OUT connector of the BKE-611/612.

⑥ RECORDER MONITOR IN connector

The same function as the RECORDER MONITOR IN connector of the BKE-611/612.

⑦ REF VIDEO OUT connectors

The same function as the REF VIDEO OUT connectors of the BKE-611/612.

⑧ COLOR BAR OUT connectors

The same function as the COLOR BAR OUT connectors of the BKE-611/612.
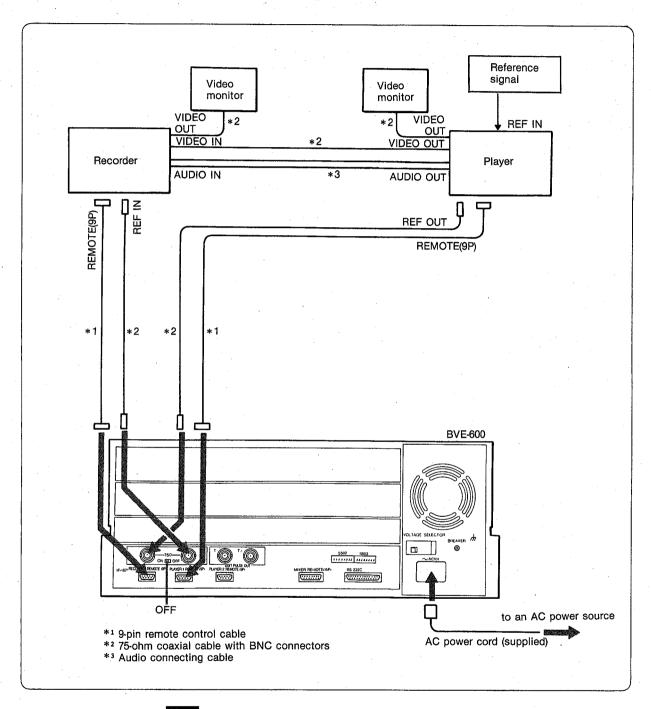
⑨ TITLE block

The same function as the TITLE block of the BKE-611/612.

HOW TO USE

Connections

Basic Connections
—Editing system using a recorder and a player—

*1 9-pin remote control cable
*2 75-ohm coaxial cable with BNC connectors
*3 Audio connecting cable

Note

When an external reference signal is not input, an error of 1 frame may occur in edit accuracy.

Connections for A/B Roll Editing
—Editing system using a recorder and two players—

For A/B roll editing, the BKE-611/612 or BKE-621/622 switcher board (optional) is necessary.

Editing system of a composite video signal—Mounting a BKE-611/612 composite switcher board—
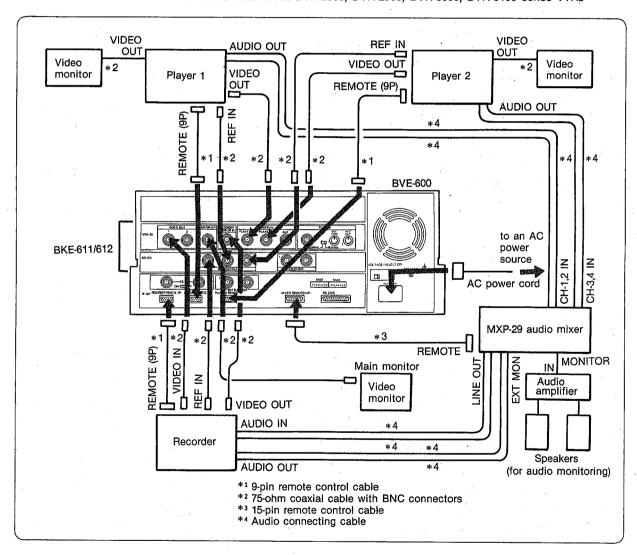
The following VTRs can be connected to the BVE-600.
"Betacam" VTR: BVW-10, BVW-15, BVW-40 series VTRs
"Betacam SP" VTR: BVW-60, BVW-65, BVW-70, BVW-75 series VTRs
U-matic VTR: BVU-800, BVU-820, BVU-900, BVU-950 series VTRs
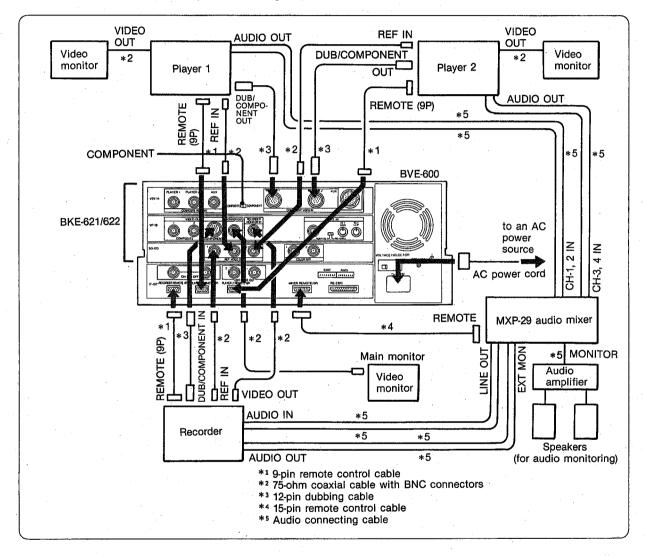1-inch helical scan VTR: BVH-2000, BVH-2500, BVH-3000, BVH-3100 series VTRs

VIDEO OUT · Video monitor · *2 · Player 1 · VIDEO OUT · AUDIO OUT · REF IN · VIDEO OUT · REMOTE (9P) · Player 2 · VIDEO OUT · *2 · Video monitor · AUDIO OUT

REMOTE (9P) · REF IN · *1 · *2 · *2 · *2 · *2 · *1 · *4 · *4 · *4 · *4

BVE-600

BKE-611/612

to an AC power source
AC power cord

CH-1,2 IN · CH-3,4 IN

MXP-29 audio mixer

REMOTE (9P) · *1 · *2 · *2 · *2 · *3 · REMOTE · Main monitor · Video monitor · LINE OUT · EXT MON · IN · MONITOR · Audio amplifier

VIDEO IN · REF IN · VIDEO OUT

AUDIO IN · *4

Recorder · *4 · *4 · Speakers (for audio monitoring)

AUDIO OUT · *4

*1 9-pin remote control cable
*2 75-ohm coaxial cable with BNC connectors
*3 15-pin remote control cable
*4 Audio connecting cable

• If a main monitor is connected, pictures from all VTRs can be monitored with the main monitor without connecting monitors to players.
• To edit an audio signal of the equipment connected to the AUX connector, connect the audio signals to the CH-5, 6 IN connectors on the MXP-29.

The following VTRs can be connected to the BVE-600.
"Betacam" VTR: BVW-10, BVW-15, BVW-40 series VTRs
"Betacam SP" VTR: BVW-60, BVW-65, BVW-70, BVW-75 series VTRs

- The BKE-621/622 can be used for composite video signal editing. For editing composite video signals, set the COMPOSITE/COMPONENT selector to COMPOSITE.

*1 9-pin remote control cable
*2 75-ohm coaxial cable with BNC connectors
*3 12-pin dubbing cable
*4 15-pin remote control cable
*5 Audio connecting cable

- If a main monitor is connected, pictures from all VTRs can be monitored with the main monitor without connecting monitors to the players.
- The signal from the MONITOR OUT connector is always a composite signal independent of the setting of the COMPOSITE/COMPONENT selector.
- To edit an audio signal of the equipment connected to the AUX connector, connect the audio signal to the CH-5, 6 IN connectors on the MXP-29.
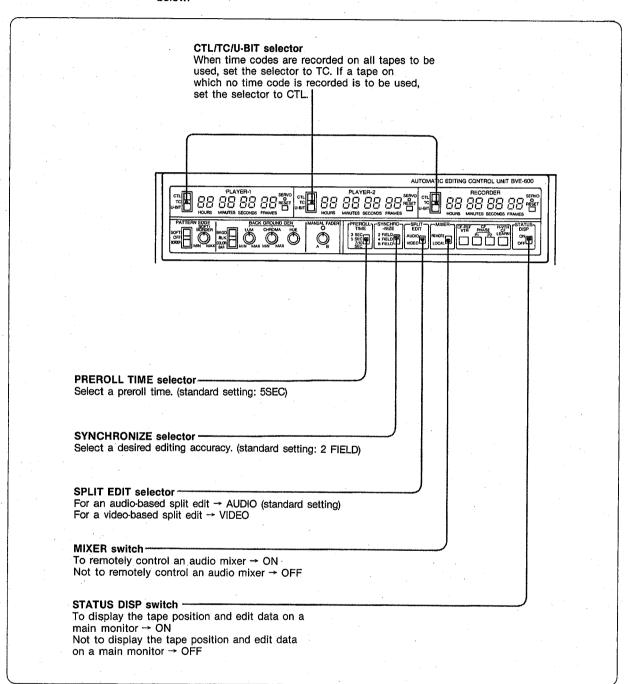
Preparations

Preparation of VTRs

The following preparations are required for the VTRs used as a recorder and a player.

1 Set the POWER switch to ON.

2 Set the REMOTE switch to REMOTE1 (9P).

3 Insert a cassette tape.

4 Make the necessary adjustments for playback such as tracking, skew, audio playback level, etc. on the player.

5 Make the necessary adjustments for recording such as video and audio recording level adjustment on the recorder.

Preparation of the System Setup Panel

Set the selectors on the time counter display and system setup panel as shown below.

CTL/TC/U-BIT selector
When time codes are recorded on all tapes to be used, set the selector to TC. If a tape on which no time code is recorded is to be used, set the selector to CTL.

PREROLL TIME selector
Select a preroll time. (standard setting: 5SEC)

SYNCHRONIZE selector
Select a desired editing accuracy. (standard setting: 2 FIELD)

SPLIT EDIT selector
For an audio-based split edit → AUDIO (standard setting)
For a video-based split edit → VIDEO

MIXER switch
To remotely control an audio mixer → ON
Not to remotely control an audio mixer → OFF

STATUS DISP switch
To display the tape position and edit data on a main monitor → ON
Not to display the tape position and edit data on a main monitor → OFF

Preroll time

On a VTR, several seconds tape running is required for servo lock to take place. To obtain servo lock at a designated edit point, all tapes start running a little before the IN point. This is called preroll, and the point to start running is called the preroll point. The preroll time can be selected by the PREROLL TIME selector.

Status display

When a BKE-611/612 or BKE-621/622 switcher board (optional) is mounted in the BVE-600, tape position and edit data can be displayed on a video monitor connected to the MONITOR OUT connector (main monitor). Press the VTR button in the MONITOR OUT select block, and set the STATUS DISP switch to ON to display the data.

IN: In point data
OUT: Out point data
EFFECT: Start point of the effect
SPLIT: Split time
DURATION: Duration
SHOW START: Show start time of editing operation

Data of player 1
Data of player 2
Data of recorder

When no data is set,
"– – – –" is displayed.

While the VTRs are being synchronized, the grade of synchronization (1, 2 or 3) is displayed.
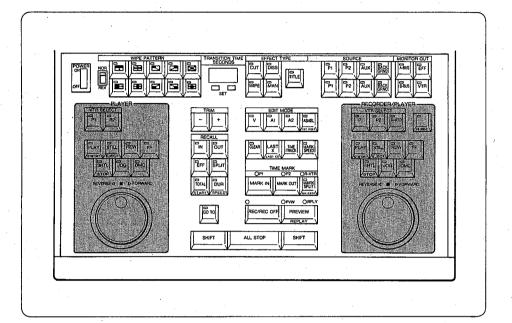
• When the time code mode is set in drop frame mode on the BVE-600, a dot " . " is displayed between seconds and frames instead of the colon " : ". When the tape on which the time code has been recorded in drop frame mode is used, a dot is displayed between minutes and seconds.

00:00:00:00

When the system is set in drop frame mode, a dot " . " is displayed

When the time code has been recorded on the tape in drop frame mode, a dot " . " is displayed.

Remote Control of VTRs

The buttons and search dials in the PLAYER control block and the RECORDER/PLAYER control block have the same function as those of the corresponding buttons and dial on a VTR. With these buttons and dial, a connected VTR can be remotely controlled.
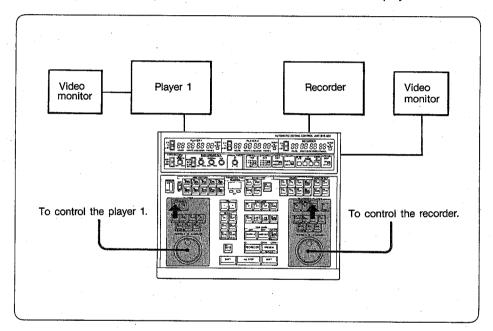
Selecting a VTR to be controlled

Select a VTR to be controlled by the VTR SELECT buttons. Buttons in the PLAYER control block and in the RECORDER/PLAYER control block have the same function. The button pressed last is always effective. The indicator on the pressed button lights to indicate which VTR is controlled.

Controlling two VTRs simultaneously

Up to two VTRs can be controlled at a time, one by the PLAYER control block and another by the RECORDER/PLAYER control block.
For example, if the P1 button of the VTR SELECT buttons in the PLAYER control block, and the R-VTR button in the RECORDER/PLAYER control block are pressed, the player 1 and the recorder can be controlled simultaneously without switching them.
Then edit points can easily be searched for on the recorder and the player.

Control of the Tape Transport

Tape transportation can be controlled with the following buttons in the PLAYER control block and the RECORDER/PLAYER control block.
PLAY: Tape playback
STILL: A still picture
REW: Rewinding a tape
FF: Running a tape rapidly
SHIFT + PLAY (STB OFF): Standby off mode (effective only in STOP mode)
SHIFT + STILL (EJECT): To eject a cassette
SHIFT + SHTL (STOP): To stop tape transportation
SHIFT + R-REC: To set the recorder in record mode
   (effective only when a recorder is selected)
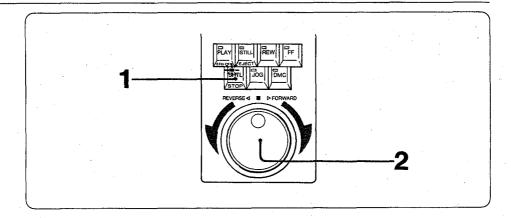
Search Operation

The same search operation as on a VTR is possible with the SHTL button, JOG button, DMC button and search dial.
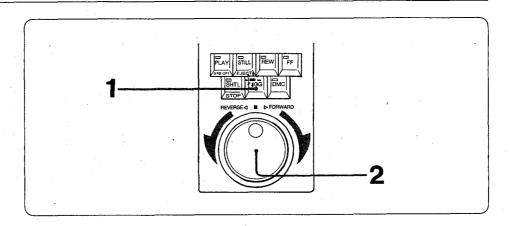
Shuttle mode

1 Press the SHTL button. The indicator on the button lights.

2 Turn the search dial.
Clockwise rotation runs the tape in the forward direction, and the FORWARD lamp lights. Counterclockwise rotation runs the tape in the reverse direction, and the REVERSE lamp lights.
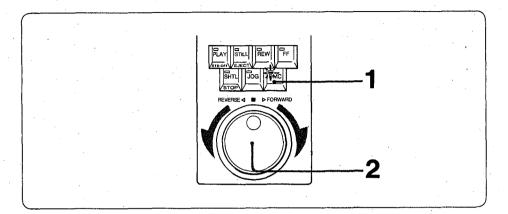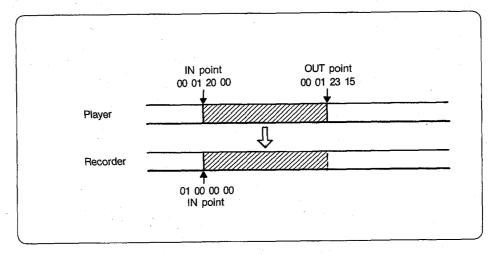The tape speed is decided by the position of the dial.

Jog mode

1 Press the JOG button. The indicator on the button lights.

2 Turn the search dial.
The tape runs according to the rotating speed of the dial.

DMC (dynamic motion control) playback

When a VTR with a DT (dynamic tracking) function is used, the playback speed can be controlled in DT mode.

1 Press the DMC button. The indicator on the button lights.

2 Turn the search dial.
Clockwise rotation runs the tape in the forward direction, and the FORWARD lamp lights. Counterclockwise rotation runs the tape in the reverse direction, and the REVERSE lamp lights.
The tape speed can be varied continuously within the range of DT playback speed.
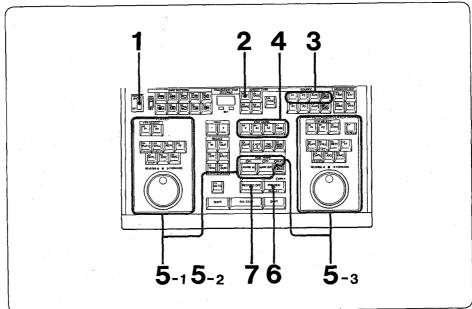
Basic editing using a BVE-600, a player and a recorder, with transition from one picture to the next made by cut, is described here.
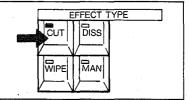
Operating Procedure

The basic operating procedure is shown on the left. The right column shows buttons pressed for executing an assemble edit using PLAYER 1 and the recorder in the following conditions having decided the IN and OUT points of the player and the IN point of the recorder.
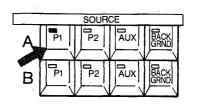
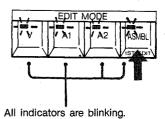|	
1 Set the POWER switch to ON.	
2 Press the CUT button in the EFFECT TYPE select block. The indicator lights.	
3 Select a signal used for the editing by the buttons on the A bus in the SOURCE select block.	
4 Select the edit mode. **For assemble editing** Press the ASMBL button after confirming that all indicators on the V, A1, A2 and ASMBL buttons are blinking, and the indicator on the pressed button lights. • When an indicator of the V, A1, or A2 button is lit, press the button. **For insert editing** Press the V button to edit a video signal. Press the A1 button to edit an audio channel 1 signal. Press the A2 button to edit an audio channel 2 signal. The indicator on the pressed button lights.	 All indicators are blinking.

45

5 Decide the edit points.

Decide the two IN points and either of the OUT points among the IN and OUT points of the player and the recorder as follows.

1) Select a VTR with the VTR SELECT buttons.
2) Search for a point with the search dial.
3) Press the MARK IN or MARK OUT button to decide the edit point.

Repeat steps 1) through 3). (For details, refer to "Deciding Edit Points".)

For assemble editing, decide the IN and OUT points of the player, and the IN point of the recorder.
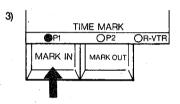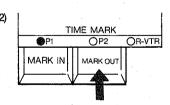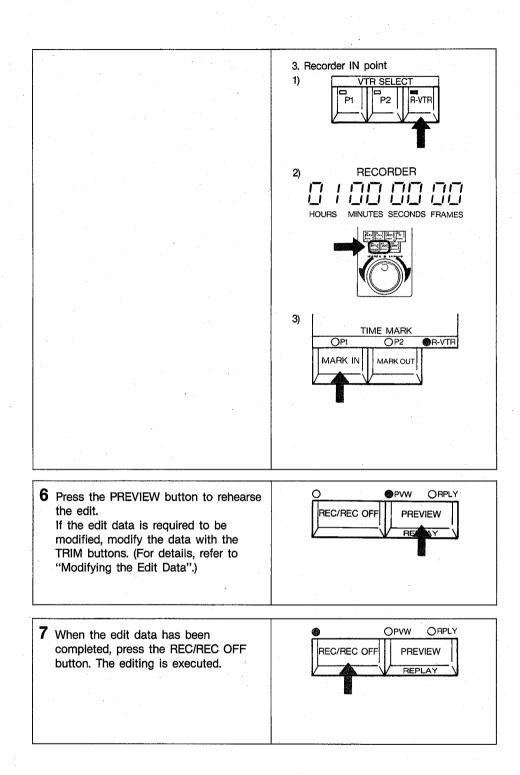
1. Player IN point

1)

```
         VTR SELECT
      ┌──────┬──────┐
      │ ▬    │ ▭    │
      │  P1  │  P2  │
      └──────┴──────┘
          ⬆
```

2) PLAYER-1

$$00\ 0\ I\ 20\ 00$$

HOURS   MINUTES SECONDS FRAMES

3)

```
            TIME MARK
      ●P1       ○P2      ○R-VTR
   ┌─────────┬──────────┐
   │ MARK IN │ MARK OUT │
   └─────────┴──────────┘
       ⬆
```

2. Player OUT point

1) PLAYER-1

$$00\ 0\ I\ 23\ I5$$

HOURS   MINUTES SECONDS FRAMES

2)

```
            TIME MARK
      ●P1       ○P2      ○R-VTR
   ┌─────────┬──────────┐
   │ MARK IN │ MARK OUT │
   └─────────┴──────────┘
                 ⬆
```

3. Recorder IN point

1)

```
        VTR SELECT
   [  ]      [  ]     [▪]
   P1         P2      R-VTR
```

2)   RECORDER

$$0 1 \quad 0 0 \quad 0 0 \quad 0 0$$

HOURS   MINUTES   SECONDS   FRAMES

3)

```
            TIME MARK
   ○ P1          ○ P2       ● R-VTR
  | MARK IN |   | MARK OUT |
```

---

6 Press the PREVIEW button to rehearse the edit.
If the edit data is required to be modified, modify the data with the TRIM buttons. (For details, refer to "Modifying the Edit Data".)

```
 ○         ● PVW    ○ RPLY
| REC/REC OFF |  |  PREVIEW  |
                 |  RE   Y  |
```

---

7 When the edit data has been completed, press the REC/REC OFF button. The editing is executed.

```
 ●              ○ PVW    ○ RPLY
| REC/REC OFF |  |  PREVIEW  |
                 |  REPLAY  |
```

Notes on assemble editing

• At the starting point of the first assemble edit, CTL signals should be recorded for the period longer than the preroll time in advance.
• After the end point (OUT point) of an assemble editing, fully erased portion remains. Therefore if an assemble editing is executed at the middle of a recorded tape, signals are inconsecutive at the OUT point, and the picture will be unstable at that point.
• Time codes consecutive to that recorded on the tape of the recorder are recorded in assemble editing.
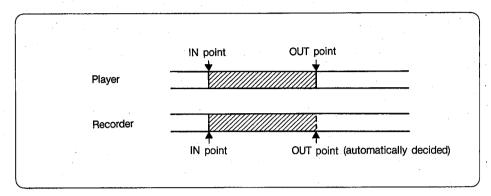
Note on an insert editing

CTL signals should be recorded on the tape from beginning to end for insert editing. When a blank tape is used, record the reference signals first.

Edit Points

When the IN points of the recorder and player and either of the OUT points are
decided, the other OUT point is automatically set by calculation.
* In assemble editing, the OUT point of a recorder cannot be designated. Be sure to decide
  the IN and OUT points of a player and the IN point of a recorder.

Note on the OUT point
When both OUT points of the player and the recorder are decided but they do not
match, the OUT point of the recorder is used. The OUT point of the player is ignored.

When an OUT point is not decided

An edit can be executed without designating the OUT point. In this case, press the
REC/REC OFF button to stop editing. The point where the button was pressed is
automatically set as the OUT point, and all the VTRs stop at the postroll point.
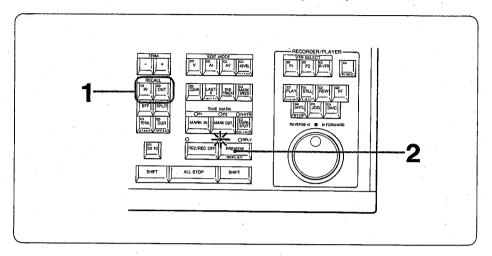* If the ALL STOP button is pressed, all the VTRs stop, but the OUT point is not set.
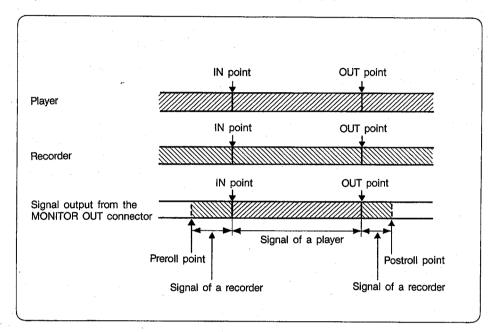
Rehearsal of an Edit (PREVIEW)

After edit data such as edit mode, edit points, are decided, a rehearsal of the edit is possible. This is called preview.

Press the PREVIEW button, and the tapes on the recorder and player run in the same way as in actual editing, and the signal from the preroll point to the postroll point is output from the MONITOR OUT connector as shown below.

- In an assemble edit, the recorder stops after the IN point. From the MONITOR OUT connector, the signal from the player continues to be output after the OUT point.

50

Besides the rehearsal of an edit, rehearsal at an edit point is possible.

1 Designate the edit point to be rehearsed by pressing one of the RECALL buttons.
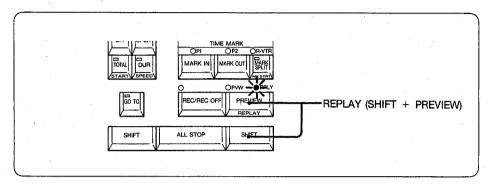IN point: IN button
OUT point: OUT button

2 Press the PREVIEW button.
Rehearsal of the point designated in step 1 is executed.

While executing preview of an edit, the preview can be changed to the IN or OUT point preview. Press the IN or OUT button while pressing the SHIFT button.

Checking an Executed Edit (REPLAY)

After editing, press the PREVIEW button while pressing the SHIFT button (REPLAY).
The edited part is played back.

Replay of the IN or OUT point

To check the IN or OUT point, press the IN or OUT button, and the REPLAY (SHIFT
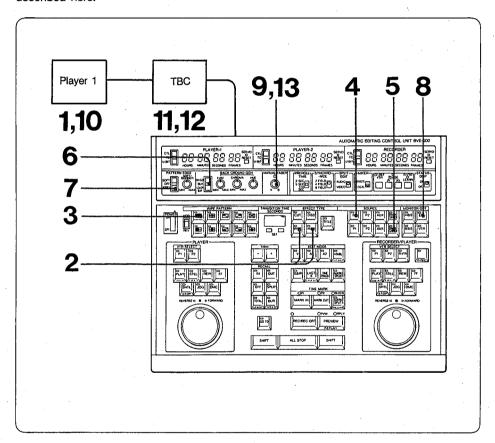+ PREVIEW) button.
During replay, only the IN or OUT point can be replayed. Press the IN or OUT button
while pressing the SHIFT button.

Editing using two players is called A/B roll editing.
When a BKE-611/612 or BKE-621/622 switcher board (optional) is mounted in the
BVE-600, the BVE-600 can execute A/B roll editing, and an effect such as wipe,
dissolve, can also be added. The basic procedure of A/B roll editing is described here.

Preparation for A/B Roll Editing (Adjusting the time base corrector)

To execute A/B roll editing, the phases of the signals played back by two players
should match. To obtain the playback signals whose phases match, supply the
playback signal to the BVE-600 through a time base corrector (TBC), and adjust the
TBC so that the phases of the playback signals match. Especially as the subcarrier
phase is affected by the cable length, precise adjustment is required.
Adjustment which can be carried out without special measuring equipment is
described here.

1 Insert a tape on which color bar signals generated by the built-in color bar
generator has been recorded into the player 1.

2 Press the WIPE button in the EFFECT TYPE select block, and the MAN button.
The MANUAL FADER lamp starts blinking.

3 Press the ■ button of the WIPE PATTERN select buttons.

4 Press the P1 button of the A bus in the SOURCE select block.

5 Press the BACK GRND button of the B bus in the SOURCE select block.

6 Set the BKGD/BLACK/COLOR BAR selector to COLOR BAR.

7 Set the SOFTNESS/OFF/BORDER selector to OFF.

8 Press the EFF button in the MONITOR SELECT block.

9 Turn the MANUAL FADER control to the center position.
On a half of the monitor screen, color bars generated by the built-in color bar generator appear.

10 Set the player 1 in playback mode.
On the other half of the screen, color bar played back on the player 1 appear.

11 Turn the SC (subcarrier) control on the TBC connected to the player 1 until the same hue is obtained on the upper and lower halves of the screen.
• If the tape with the color bar signals recorded cannot be used, insert a recorded tape into the player 1, play it back, and turn the SC control until the hue of the displayed color bar becomes correct.

12 Turn the H-PHASE (horizontal phase) control on the TBC until the color bars on the upper and lower halves are not shifted.
• If the tape with the color bar signals recorded cannot be used, insert a recorded tape into the player 1, and turn the H-PHASE control until no picture shift occurs on the screen after turning the MANUAL FADER control between A and B for several times.

13 Turn the MANUAL FADER control between A and B for several times, and check no shift of hue or picture occurs. If shift occurs, repeat the adjustments in steps 11 and 12.

For player 2, execute the same adjustments.

Operating Procedure

Basic operating procedure is shown on the left. The right column shows the buttons pressed for executing an editing as follows:
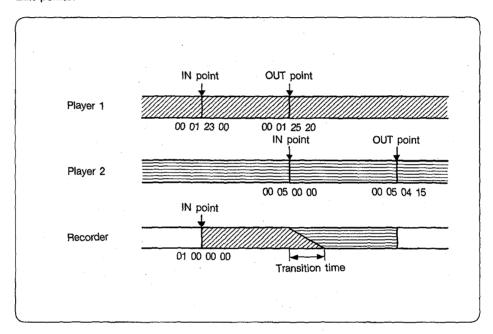
Example
Edit mode: Insert of a video signal
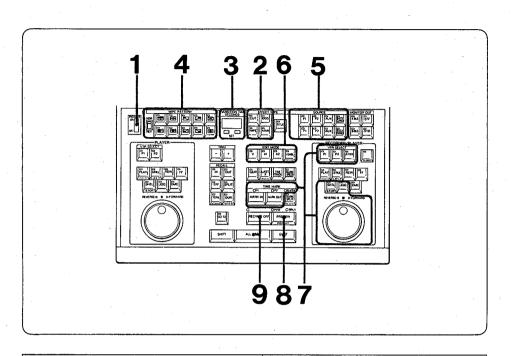Effect: Wipe
Wipe pattern: ◨
Direction of wipe: Normal
Edge of a wipe pattern: A softness or border effect is not added.
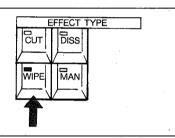Transition time: 3 seconds
Edit points:

---

1 Set the POWER switch to ON.

---

2 Select the effect with the buttons in the EFFECT TYPE block.
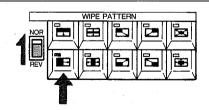

---

3 Set the transition time.
Press the SET buttons until the desired figures are shown on the TRANSITION TIME display.

---

4 Select a wipe pattern with the WIPE PATTERN select buttons when the WIPE button was pressed. Then decide the wiping direction with the NORMAL/REVERSE selector.
Select an additional effect to the edge of a wipe pattern (softness or a border) if necessary. (Refer to "Application of Wipe".)
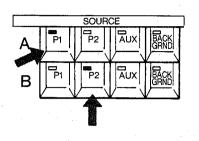When the DISS button was pressed, skip this step.

---

5 Select the signals to be used for editing with the buttons in the SOURCE select block.
Press a button on the A bus to designate the signal used first.
Press a button on the B bus to designate the signal used next.
The signal always changes from that selected on the A bus to that selected on the B bus.

6 Select the edit mode.
For assemble editing
Press the ASMBL button after confirming that all indicators on the V, A1, A2 and ASMBL buttons are blinking, and the indicator on the pressed button lights.
• When an indicator of the V, A1, or A2 button is lit, press the button.
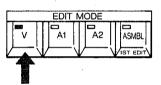**For insert editing**
Press the V button to edit a video signal.
Press the A1 button to edit an audio channel 1 signal.
Press the A2 button to edit an audio channel 2 signal.
The indicator on the pressed button lights.

7 Decide the edit points.
Three IN points and two OUT points of the 6 points (the IN and OUT points of player 1, player 2 and recorder) should be decided.
1) Select a VTR with the VTR SELECT buttons.
2) Search for a point with the search dial.
3) Press the MARK IN or MARK OUT button to decide the edit point.
Repeat steps 1) through 3). (For details, refer to "Deciding Edit Points".)

Player 1 IN point

PLAYER-1

$$00\ 0\ 12\ 3\ 00$$

HOURS   MINUTES   SECONDS   FRAMES

Player 1 OUT point

PLAYER-1

$$00\ 0\ 125\ 20$$
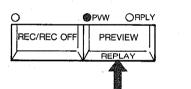
HOURS   MINUTES   SECONDS   FRAMES
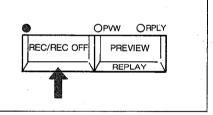
Player 2 IN point

PLAYER-2

$\Box\Box$ $\Box5$ $\Box\Box$ $\Box\Box$

HOURS   MINUTES   SECONDS   FRAMES

Player 2 OUT point

PLAYER-2

$\Box\Box$ $\Box5$ $\Box4$ 15

HOURS   MINUTES   SECONDS   FRAMES

Recorder IN point

RECORDER

$\Box1$ $\Box\Box$ $\Box\Box$ $\Box\Box$

HOURS   MINUTES   SECONDS   FRAMES
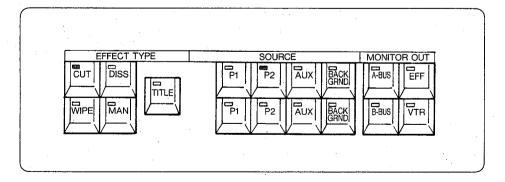
---

8 Press the PREVIEW button to rehearse the edit.
If the edit data is required to be modified, modify the data with the TRIM buttons. (For details, refer to "Modifying the Edit Data".)

○   ●PVW   ○RPLY

| REC/REC OFF | PREVIEW |
| REPLAY |

---

9 When the edit data has been completed, press the REC/REC OFF button. The editing is executed.

●   ○PVW   ○RPLY

| REC/REC OFF | PREVIEW |
| REPLAY |

When the editing is finished, the indications on the buttons in the EFFECT TYPE select block and the SOURCE select block are as shown below.

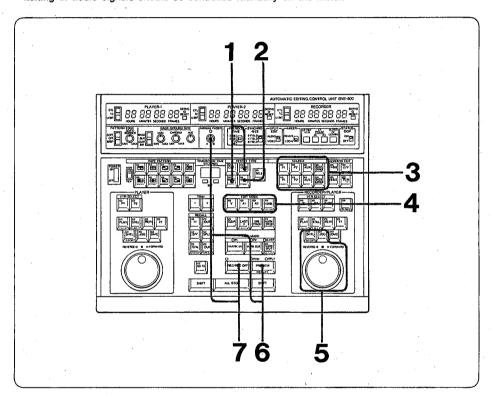| EFFECT TYPE			SOURCE				MONITOR OUT	
CUT	DISS		P1	P2	AUX	BACK GRND	A-BUS	EFF
WIPE	MAN	TITLE	P1	P2	AUX	BACK GRND	B-BUS	VTR

Manual Control of Effect

Pictures can be changed manually with wipe or dissolve. When manual control of an effect is designated, the BVE-600 controls only the VTR operation. Wipe and dissolve operation can be executed by turning the MANUAL FADER control between the IN and OUT points.

In manual control, pictures can be changed from the one selected on the A bus of the SOURCE select block to the one selected on the B bus and vice versa. The speed at which the pictures change can be varied, and the operation can be stopped on the way.

• When manual control is designated, an audio mixer cannot be controlled with the BVE-600.
Editing of audio signals should be controlled manually on the mixer.

---

1 Press the WIPE or DISS button in the EFFECT TYPE select block.
When the WIPE button was pressed, select a wipe pattern with the WIPE PATTERN select buttons.

---

2 Press the MAN button in the EFFECT TYPE select block.
The MANUAL FADER lamp starts blinking.

---

3 Select the signals to be used for editing with the buttons in the SOURCE select block.

---

4 Select the edit mode.

---

5 Decide the edit points
Preparation for the manual control is completed.

6 To rehearse the effect, press the PREVIEW button, and turn the MANUAL FADER control when the tape passes the IN point.
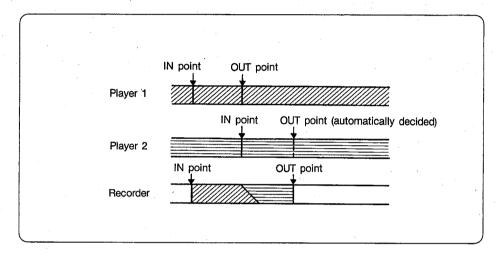The picture changes to the next one at the speed corresponding to the turning speed of the control.
Turning the control clockwise changes a picture selected on the A bus to that selected on the B bus. Turning the control counterclockwise change a picture selected on the B bus to that selected on the A bus.

7 To execute editing, press the REC/REC OFF button, and turn the MANUAL FADER control in the same way as in preview.

Edit Points of A/B Roll Editing

For A/B roll editing, 6 edit points (the IN and OUT points of player 1, player 2 and the recorder) should be decided. Actually when three IN points and two OUT points among these are decided, the last OUT point is automatically set by calculation.
For example, when the IN and OUT points of player 1, and the IN point of player 2, and IN and OUT points of a recorder are decided, the OUT point of player 2 is automatically calculated as shown below.

Note on the OUT point

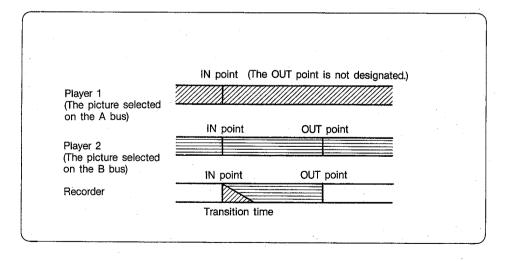When both OUT points of the recorder and player 2 are decided but they do not match, the OUT point of the recorder is used. The OUT point of player 2 is ignored.

To start an effect from the IN point of an editing

Do not designate the OUT point of the picture selected by the buttons on the A bus. When the editing is executed, the effect immediately starts from the IN point of the first picture.

Rehearsal of an Edit (PREVIEW)

After edit data such as edit mode, edit points, are decided, a rehearsal of the edit is possible.
Press the PREVIEW button, and the tapes on the recorder and players run in the same way as in actual editing, and the signal from the preroll point to the postroll point is output from the MONITOR OUT connector.

Preview of the IN, OUT or effect point

Besides the rehearsal of an edit, rehearsal at an edit point is possible. Designate the point to be rehearsed by pressing the IN, OUT or EFF button, and press the PREVIEW button. The preview at the designated point is executed.
While executing preview of an edit, the preview can be changed to the IN, OUT or effect point preview. Press the IN, OUT or EFF button while pressing the SHIFT button.

Checking an Executed Edit (REPLAY)

After editing, press the PREVIEW button while pressing the SHIFT button (REPLAY).
The edited part is played back.

Replay of the IN, OUT or effect point

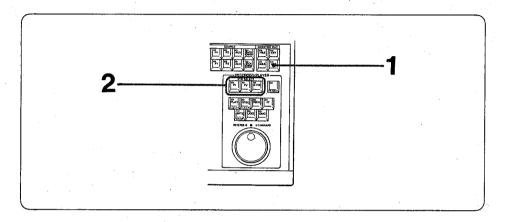To check the IN, OUT or effect point, press the IN, OUT or EFF button, and the REPLAY (SHIFT + PREVIEW) button.
During replay, only the IN, OUT or effect point can be replayed. Press the IN, OUT or EFF button while pressing the SHIFT button.

Monitoring a Picture

When a video monitor is connected to the MONITOR OUT connector on the connector panel of the BKE-611/612 or BKE-621/622, pictures of the players, the recorder and the edited results can be seen on the monitor (main monitor). The picture to be monitored is selected by the buttons in the MONITOR OUT select block.
When the STATUS DISP switch on the system setup panel is set to ON, the edit data is displayed on the main monitor. (For details, refer to "Preparations".)

Monitoring a picture of the player or recorder

1 Press the VTR button in the MONITOR OUT select block. The indicator on the button lights.

2 Press one of the VTR SELECT buttons to select a VTR whose picture is monitored.
To see the picture of player 1: Press the P1 button.
To see the picture of player 2: Press the P2 button.
To see the picture of the recorder: Press the R-VTR button.
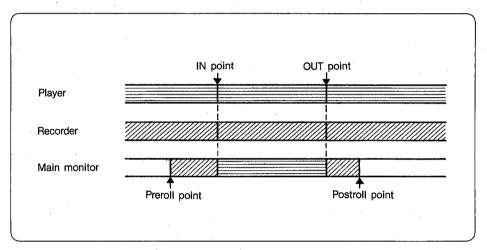
Monitoring the other pictures

To see a picture selected by the buttons of the A bus in the SOURCE select block: Press the A BUS button.
To see a picture selected by the buttons of the B bus in the SOURCE select block: Press the B BUS button.
To monitor the effect: Press the EFF button.

Monitoring the picture being previewed or edited
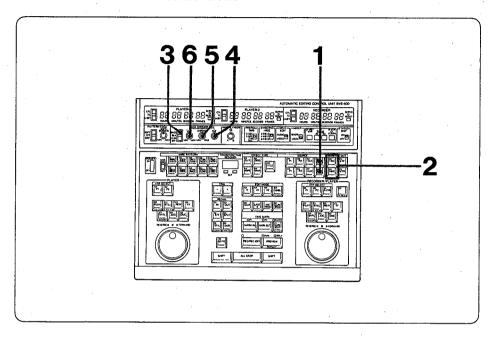
When a video output signal of a recorder is connected to the RECORDER MONITOR IN connector on the connector panel of the BKE-611/612 or BKE-621/622, the edited picture can be monitored during preview or editing.

- During preview in an assemble edit, the recorder stops after the IN point, and the signal from the player continues to be displayed on the main monitor after the OUT point.

Adjusting Background Color
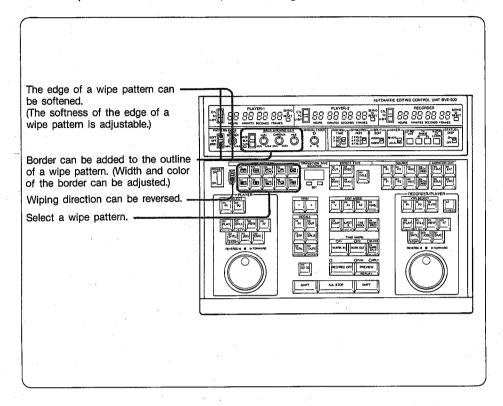
When the BACK GRND button in the SOURCE select block is pressed, the color signal generated by the built-in background generator is used for editing instead of a playback signal from a VTR. The color can be adjusted with the switch and controls in the BACKGROUND GEN control block.

1 Press the BACK GRND button in the SOURCE select block.

2 Press the A-BUS or B-BUS button, corresponding to the bus on which the BACK·GRND button has been pressed in step 1, in the MONITOR OUT select block.

3 Set the BACKGROUND GEN selector to BACK GROUND. A background color appears on the main monitor screen.

4 Adjust the hue with the HUE control.

5 Adjust the chroma level with the CHROMA control.

6 Adjust the brightness with the LUM control.

Application of Wipe

When a wipe is selected as an effect, the following effects can be selected.

The edge of a wipe pattern can be softened.
(The softness of the edge of a wipe pattern is adjustable.)

Border can be added to the outline of a wipe pattern. (Width and color of the border can be adjusted.)

Wiping direction can be reversed.

Select a wipe pattern.

Reversing the wiping direction

Set the NORMAL/REVERSE selector in the WIPE PATTERN select block to REVERSE, and the wiping is executed in the direction opposite to the arrow on the WIPE PATTERN select buttons.

Softening the edge of a wipe pattern

Set the SOFT/OFF/BORDER selector to SOFT, and the edge of a wipe pattern is softened. The softness can be adjusted with the SOFT/BORDER control.
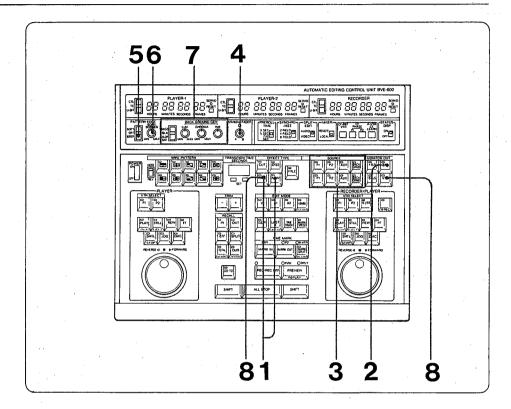
Adding a border to the edge of a wipe pattern

Set the SOFT/OFF/BORDER selector to BORDER, and a border is added to the edge of a wipe pattern. The width of the border can be adjusted by the SOFT/BORDER control, and the color is adjusted with the BACKGROUND GEN control block with the same manner as that for background color adjustment.

Note
The color of the background will be the complementary color of the border. The colors of the background and border cannot be adjusted independently.

66
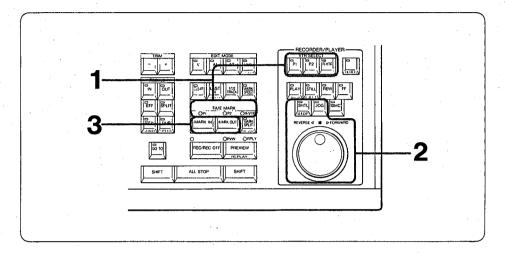
1 After pressing the WIPE button in the EFFECT TYPE select block, press the MAN button.

2 Press the EFF button in the MONITOR OUT select block.

3 Select signals used for wipe with the buttons in the SOURCE select block.

4 Turn the MANUAL FADER control so that the edge of a wipe pattern can be seen on the monitor screen.

5 Set the SOFT/OFF/BORDER select to SOFT or BORDER.

6 Turn the SOFT/BORDER control to adjust the softness or the width of the border.

7 When border is selected, adjust the color of the border with the BACKGROUND GEN control block.

8 When adjustment is finished, press the WIPE button in the EFFECT TYPE select block, and the VTR button in the MONITOR OUT select block.

Deciding Edit Points

Search for an edit point with the search dial in the PLAYER control block or the RECORDER/PLAYER control block, and decide it by pressing the buttons in the TIME MARK block.
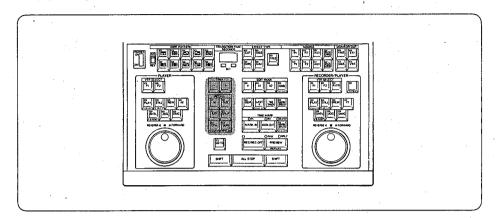

1 Press one of the VTR SELECT buttons to select a VTR whose edit data is to be decided.
The corresponding indicator in the TIME MARK block lights. The TIME MARK buttons are effective only on the VTR whose indicator is lit.

2 Search for an edit point by turning the search dial.

3 Press the MARK IN button to decide the IN point. Press the MARK OUT button to decide the OUT point.
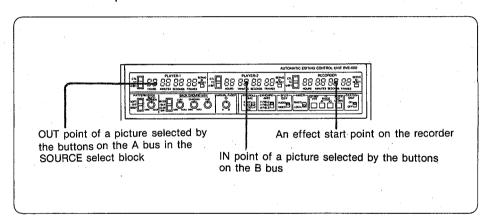
Checking the Edit Data (RECALL)

Press one of the RECALL buttons to check the edit data as shown below. The data corresponding to the pressed button is displayed on the time counter displays.

To check the IN point data: IN button
To check the OUT point data: OUT button
To check the start point of an effect: EFF button

OUT point of a picture selected by the buttons on the A bus in the SOURCE select block

An effect start point on the recorder

IN point of a picture selected by the buttons on the B bus

To check the split edit data: SPLIT button
  (displayed on the time counter display of the VTR on which the split edit has been designated)
To check the total time of editing: TOTAL button
  (displayed on the RECORDER time counter display)
To check duration: DUR button
To check the show start time: START (SHIFT + TOTAL) button
  (displayed on the RECORDER time counter display)
To check the DMC playback speed: SPEED (SHIFT + DUR) button
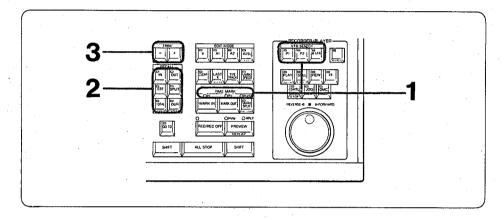
Modifying the Edit Data (TRIM)

To modify the edit data, proceed as follows.

1 Press one of the VTR SELECT buttons to designate the VTR whose data is to be modified.

2 Press one of the RECALL buttons to designate the data to be modified.
To modify the IN point: IN button
To modify the OUT point: OUT button
To modify the start point of effect: EFF button
To modify the duration: DUR button
To modify the data of split edit: SPLIT button
To modify the DMC playback speed: SPEED (SHIFT + DUR) button
To modify the show start time: START (SHIFT + TOTAL) button
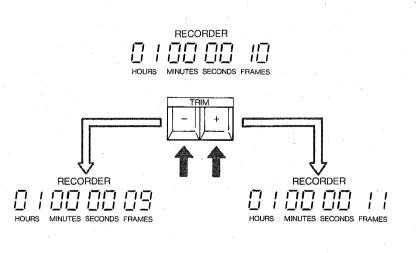
3 Press the TRIM buttons to modify the data.
Every time the + button is pressed, a picture advances by one frame.
Every time the − button is pressed, a picture goes back by one frame.

For example, the current IN point of the recorder, "01 00 00 10", is to be modified:

Cueing Up Edit Points (GO TO)

To cue up edit points, designate the edit point by pressing one of the RECALL buttons, and press the GO TO button. On the time counter displays, the designated data is shown, and the tapes run to the designated points, and stop. On the video monitor screen, a still picture at the designated point appears.
• If only the GO TO button is pressed without pressing any RECALL button, the IN point is cued up.
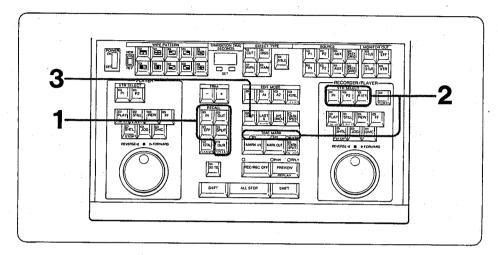
To cue up the IN point: IN button
To cue up the OUT point: OUT button
To cue up the effect start point: EFF button.
To cue up the start point of split edit: SPLIT button
To cue up the starting point of an edit operation: START (SHIFT + TOTAL) button

Clearing the Edit Data (CLEAR)

The edit data is automatically changed with the new data when new data is entered. To clear data without entering new data, proceed as follows.

1 Press one of the RECALL buttons to designate the data to be cleared.
IN point: IN button
OUT point: OUT button
Effect start point: EFF button (The OUT point of the signal selected by the A bus in the SOURCE select block and the IN point of the signal selected by the B bus are cleared.)
Split edit data: SPLIT button
DMC playback speed: SPEED (SHIFT + DUR) button
Show start time: START (SHIFT + TOTAL) button
Duration (Only the OUT point is cleared.): DUR button

2 Press one of the VTR SELECT buttons to designate the VTR whose data is to be cleared if necessary.
The corresponding indicator in the TIME MARK block lights.

3 Press the CLEAR button.
The designated data is cleared.
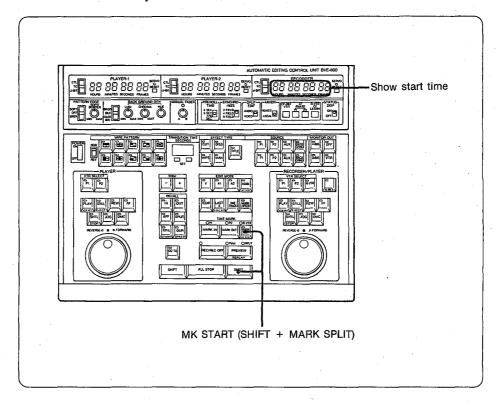
Total Time of Edits

The BVE-600 can automatically calculate the total time of edits that have been executed. The calculated data can be displayed on the RECORDER time counter display.

Setting the show start time of editing
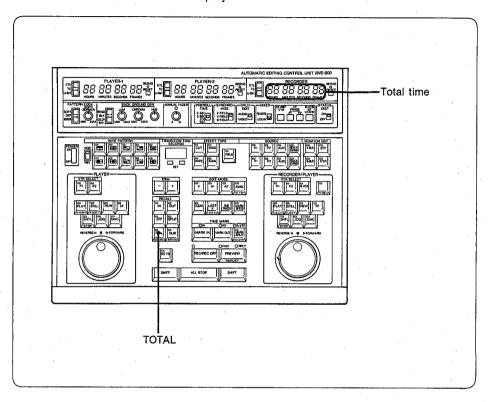
Press the MARK SPLIT button while pressing the SHIFT button (MK START), and the data displayed on the RECORDER time counter display at that time is set as the show start time.
If the show start time is not set, recorder IN point of the first edit after cassette insertion is automatically set as the show start time.

Show start time

MK START (SHIFT + MARK SPLIT)

Checking the total time
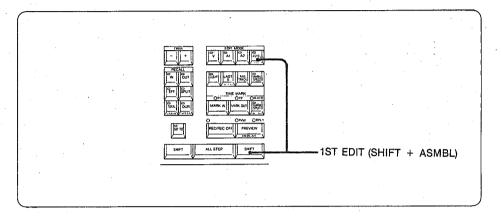
To check the total time of edits, press the TOTAL button. The total time is displayed on the RECORDER time counter display.

First Edit

When assemble editing is to be executed on a new tape (that is a tape on which no CTL signal is recorded), it is recommended to press the ASMBL button while pressing the SHIFT button (1ST EDIT) when designating the edit mode. This is called "first edit". With this method, assemble editing can be executed on a new tape without first recording the CTL signal. When a first edit is designated, editing will be executed as follows.

1ST EDIT (SHIFT + ASMBL)

1 Press the REC/REC OFF button to start editing.
A signal selected by the BACKGROUND GEN select block is automatically recorded for 10 seconds plus preroll time. The ASMBL indicator is blinking.

2 The tape of the recorder returns to the preroll point and stops. The value set in menu 5 of the system setup is automatically set as the data of the recorder IN point. The factory set value is "01:00:00:00".
The ASMBL indicator stays lit.

3 Tapes on the recorder and the player start running from the preroll point, and assemble editing is executed.

Once the above procedure has been executed, the following editing will be executed in an ordinary assemble mode.
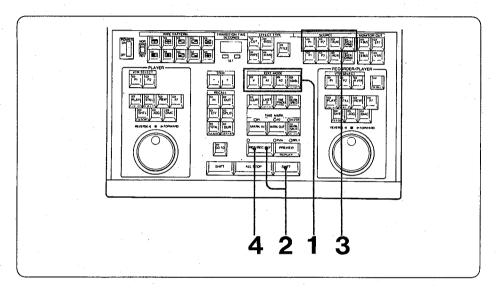
Note
The first edit can be carried out only when an optional switcher board BKE-611/612 or BKE-621/622 is mounted in the BVE-600.

Manual Editing

Without designating the edit data nor controlling the VTRs automatically, a signal source used for the editing can be manually selected, and recording can be started and stopped manually.

During manual editing, the edit mode cannot be changed from insert to assemble and vice versa. In the insert editing, the edit signal can be changed during the edit.

Proceed as follows.

1 Select the edit mode in the EDIT MODE select block.

2 Press the REC/REC OFF button while pressing the SHIFT button.
The recorder enters the playback mode.

3 Select a signal to be recorded in the SOURCE select block. When the P1 or P2 button is pressed, start playback of player 1 or player 2.

4 Press the REC/REC OFF button at the point from where the recording is started.
The recorder enters the record mode, and the signal selected in step 3 is recorded.

To stop recording
Press the REC/REC OFF button, and the recorder enters the playback mode.
Every time the REC/REC OFF button is pressed, the recorder enters the playback or record mode alternately.

To change the signal to be recorded
Press one of the buttons in the SOURCE select block.

To change the edit mode
Press one of the buttons in the EDIT MODE select block. The button whose indicator is lit is activated.
• The edit mode cannot be changed from assemble to insert and from insert to assemble.

To terminate manual editing
Press the ALL STOP button.
All the VTRs stop.

Note
The edit data of the manual editing is not output from the RS-232C connector.
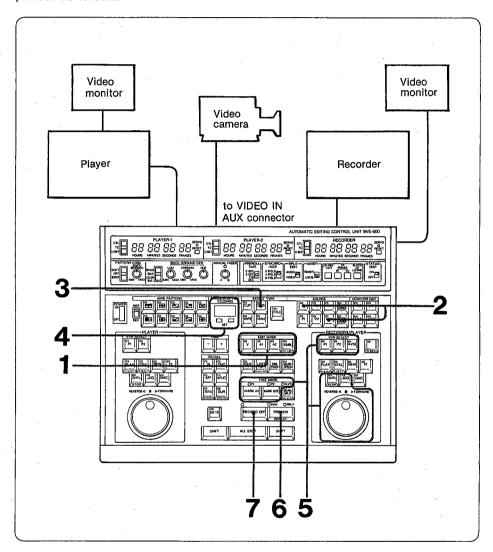
Editing Using a Video Camera

A picture picked up by a video camera can be used as a signal source for editing instead of a playback signal of a player. Connect a camera to the VIDEO IN AUX connector on the connector panel.

For example, to change a picture of player 1 to a picture from a camera with dissolve, proceed as follows:

1 Select the edit mode.

2 Press the P1 button on the A bus and the AUX button on the B bus in the SOURCE select block.

3 Press the DISS button in the EFFECT TYPE select block.

4 Set the transition time in the TRANSITION TIME set block.

5 Decide the edit points.
The IN and OUT points of player 1 and the recorder should be decided.

6 Press the PREVIEW button for rehearsal.

7 When edit data are decided, press the REC/REC OFF button to start editing.
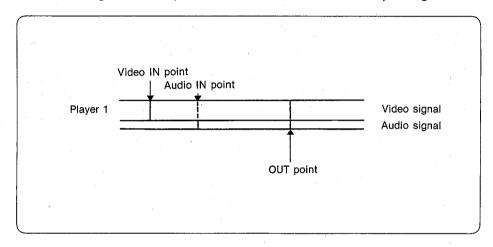
Split Editing
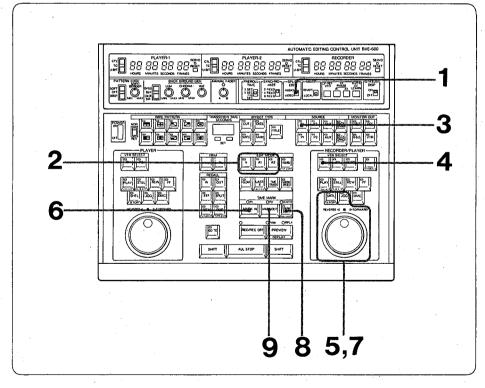
A video IN point and audio IN point can be set separately. Audio channels cannot be
split. For split editing on the BVE-600, the following conditions are required.
    Edit mode: Insert
    VTR on which split edit points can be set: A recorder or a player selected on the A
    bus.

The setting procedure of the IN point for an audio-based split editing is described
here. The setting of the OUT point is the same as that in an ordinary editing.

1 Set the SPLIT EDIT selector to AUDIO.

2 Press the V button and the A1 and/or A2 button in the EDIT MODE select block. The indicators on the pressed buttons light.

3 Press the P1 button on the A bus in the SOURCE select block.

4 Press the P1 button of the VTR SELECT buttons.

5 Search for the audio IN point on the player 1.

6 Press the MARK IN button to decide the audio IN point of the player 1.

7 Search for the video IN point on the player 1.

8 Press the MARK SPLIT button.

9 Decide the OUT point.

- If the SPLIT EDIT selector is set to VIDEO, video-based split editing is done.
- The maximum split value is 59 seconds 29 frames for the NTSC color system, or 59 seconds 24 frames for the PAL color system.
- When the MARK SPLIT button is pressed after pressing the CLEAR button, the split edit mode will be released.

Editing a Playback Signal in the DMC Mode

When a player with the DT (dynamic tracking) function is used and the DMC playback speed is set in advance, the playback speed of the player is automatically set to the DMC playback speed at the IN point of the player in editing.

Setting the DMC playback speed

1 Select a VTR which is set in DMC mode with the VTR SELECT buttons.

2 Press the DMC button.

3 Turn the search dial so that the desired playback speed is obtained.

4 Press the MARK SPEED button.
The indicator lights, and the speed set in step 3 is memorized.

Note
When the DMC playback speed is set, the playback speed of the player is always set to the memorized speed at the player IN point. To retrieve the normal playback speed, clear the DMC playback speed setting. (See "Clearing the DMC playback speed".)

Editing a playback signal in the DMC mode

Set the edit data and start editing.
At the IN point of the player on which the DMC playback speed has been set, the DMC indicator lights, and the tape on the player runs at the preset speed.

Controlling a playback speed during editing
During editing a DMC playback signal, playback speed can be varied with a search dial.

1 Press the DMC button.

2 Turn the search dial, and the playback speed changes.

Checking the DMC playback speed

Press the SPEED (SHIFT + DUR) button in the RECALL block. The set speed is displayed on the corresponding player time counter display in percent.

Clearing the DMC playback

> **1** Press the CLEAR button.

> **2** Press the MARK SPEED button.
> The DMC mode is released, and the DMC speed set on the player 1 and player 2 are cleared.

To clear the DMC data either of the player 1 or player 2, designate the VTR, press the SPEED (SHIFT + DUR) button and then the CLEAR button.

Superimposing
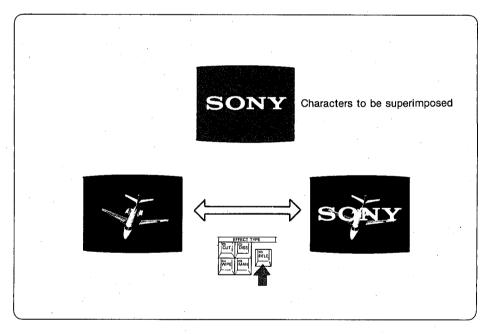
Title characters or telops can be superimposed onto a video signal. Connect a signal to be superimposed to the TITLE IN connector on the connector panel, and proceed as follows:

1 Set the NORMAL/REVERSE selector on the connector panel according to the signal to be superimposed.
To use white letters on a black background: NORMAL
To use black letters on a white background: REVERSE

2 Press the TITLE button in the EFFECT TYPE select block.
The characters are superimposed on a picture in white.

3 Adjust the superimposed characters with the KEY GAIN control and the KEY CLIP control on the connector panel so that the characters appear clearly.

To delete the superimposed character, press the TITLE button again.

Characters to be superimposed

Setting for Color Frame Editing

In order to perform color frame editing, it is necessary for the BVE-600 to learn the color frame phase of the recorder. Once this phase is established, correction of the player in-points is made to maintain the correct color frame relationship. ·

Detecting the color frame depending upon the setting of each VTR

When the CF-REF VTR button is pressed, VTRs designated in the system setup (player 1 and player 2 have been designated in the factory) detect the color frame according to the setting of their own. When the button is pressed again, this mode is released.

Adjusting the system color frame to match the color frame of the reference signal

When the recorder is equipped with the color frame detect function, pressing the R-VTR CF LEARN button will lock the system counter built-in the BVE-600 with the color frame of the reference signal before preroll or recording.
If the color frame of the video signal recorded on the tape on the recorder does not match that of the time code, the system counter will lock the color frame of the time code of the recorder.

Adjusting the setting of the recorder

If the time code has been recorded in the wrong phase on the recorder, then it will be necessary to compensate for this in the BVE-600.

While pressing the SHIFT button, press the R-VTR CF LEARN button, and the phase of the time code of the recorder is moved by one frame, and the color frame of the video signal of the recorder can be locked with that of the external video signal.

This can easily be checked by performing insert edits on the recorder of color bars into color bars and checking for any color framing problems.

Should a shift occur then the phase should be adjusted until the shift is eliminated.

When the recorder is equipped with the color frame detect function, this compensation will be automatically executed by performing the operation mentioned in "Adjusting the system color frame to match the color frame of the reference signal" as above.

Setting of the player

It is assumed that the phase of the time code recorded on the player is locked to Field 1. If it is not, it is possible to adjust the phase by pressing the P1 or P2 CF-PHASE buttons. Each time this is pressed, then the phase is advanced by one frame. While pressing the SHIFT button, press the CF-PHASE button, and the phase returns to the original condition.
NTSC: The even numbered time code frames (field 1 and field 2) are locked on frame "A".
PAL: The video frame and time codes are locked according to "EBU" standards.

The phase can be checked as follows.

Record two tapes of the same material using the recorder. Put one of these tapes into the player to be color framed. Make a CF learn on the recorder. Select 4F (or 8F in PAL) on the SYNCHRONIZE selector. Perform an edit and check for any picture shift. Press the player CF-PHASE button as required to eliminate any shift.

Displaying the condition of the color frame shift

When the SHIFT button and CF-REF VTR button are pressed simultaneously, the conditions of the color frame shift of the player 1, player 2 and recorder are displayed on the RECORDER time counter display from left to right respectively.

NTSC

PLAYER-1	PLAYER-2	RECORDER
	CF PHASE	b A A
HOURS MINUTES SECONDS FRAMES	HOURS MINUTES SECONDS FRAMES	HOURS MINUTES SECONDS FRAMES

A: The same as the color frame of the editing system
B: Reversed to the color frame of the editing system

PAL

PLAYER-1	PLAYER-2	RECORDER
	CF PHASE	3 2 0
HOURS MINUTES SECONDS FRAMES	HOURS MINUTES SECONDS FRAMES	HOURS MINUTES SECONDS FRAMES

Shifted frame numbers
against the editing system.

Matching of player and recorder color frame

Once the correct color frame has been established then editing will be performed according to the setting of the SYNCHRONIZE selector. This can be set to 2F, 4F (or 8F in PAL).

In 2F setting, no correction will be made to the player IN points.

In 4F setting, one frame may be added to the IN point.

In 8F setting, one or two frames may be added to the IN point, or one frame may be subtracted.
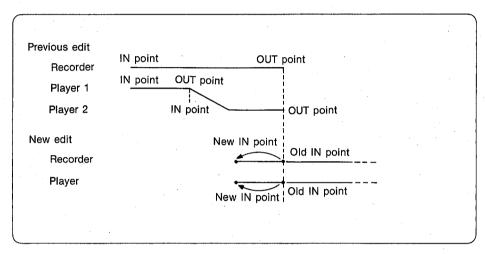
Time Track Function (Match Frame)

Automatic time track

When an edit is finished, the OUT points of the edit are automatically set as the IN points of the next edit.

When the recorder's IN point is corrected for a new edit, the player's IN point changes to match that of the recorder (match frame). This is called automatic time track.

The VTR designated in the previous edit is subject to the time track control.
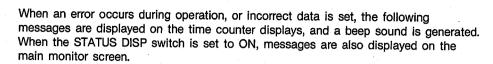
Manual time track

In the following cases, press the TIME TRACK button after designating the VTR to establish the sync relationship between the recorder and the player.

• When reactivating a player as a time track VTR to modify its IN point to match the recorder's IN point, after the player's IN point has been modified and time track has been deactivated.

Error Messages

When an error occurs during operation, or incorrect data is set, the following messages are displayed on the time counter displays, and a beep sound is generated. When the STATUS DISP switch is set to ON, messages are also displayed on the main monitor screen.

CANNOT CF-LEARN
The color frame cannot be detected even if the color frame editing function has been set to operate.
This is displayed on the RECORDER time counter display.

CANNOT CUE UP
The designated VTR cannot cue up the specified point when the GO TO button, PREVIEW button or REC/REC OFF button is pressed.
This is displayed on the time counter display corresponding to the VTR whose designated point has not been cued up.

CANNOT CONTROL
Automatic editing cannot be executed completely.
This is displayed on the time counter display corresponding to the VTR whose operation has not been completed.

CANNOT SYNCHRONIZE
The VTRs cannot be synchronized with the specified accuracy.
This is displayed on the time counter display corresponding to the VTR which has not been synchronized.

ROM ERROR
A check-sum error has occurred in the program of the system.
"ROM" is displayed on the PLAYER-1 time counter display, and "ERROR" is displayed on the PLAYER-2 time counter display.

ERR IN, ERR OUT
DEFINE IN POINT, DEFINE OUT POINT
The IN or OUT point has not been set, or invalid data has been set.
"ERR IN" or "ERR OUT" is displayed on the time counter display of the VTR whose data has not been set.
DEFINE IN POINT or DEFINE OUT POINT is displayed on the main monitor screen.

DEFINE EDIT MODE
Edit mode has not been defined.
This is displayed only on the main monitor screen. On time counter displays, no message will appear, but the indicators on the buttons in the EDIT MODE select block blink, and buzzer sounds.

To clear the error message

Press one of the buttons on the control panel.
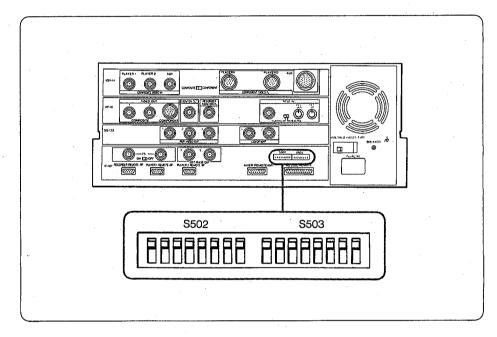
The setting required for the basic operation of the BVE-600 has been done at the factory. If necessary, the following items can be reset as desired.

Setting in Initial Mode

The settings required when installing the unit are set in initial mode with the DIP switches on the connector panel.
All switches are set to the upper position at the factory. This is the standard setting.
If the setting is required to be changed, be sure to turn the power of the BVE-600 off, and reset the switch. The function of each switch is described in ❽ DIP switches in "Connector Panel".

Setting in Auxiliary Mode

The settings required for editing are set in auxiliary mode as follows:
Setting drop frame or non-drop frame mode of time code (menu 1)
Setting synchronization accuracy (menu 2)
Setting time code used (menu 3)
Setting number of VTRs whose data is displayed on the monitor screen (menu 4)
Setting the time code data of the recorder IN point for the first edit (menu 5)
Setting the user bit (menu 6)
Selecting the VTR to which the CF-REF VTR button is effective (menu 7)
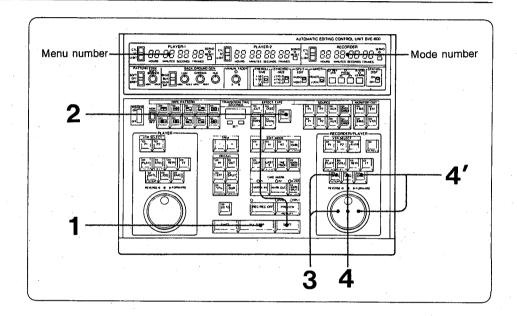
Setting the data

---
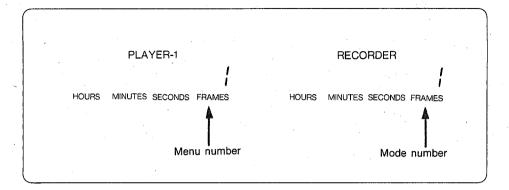
1 Press the ALL STOP button.

---

2 While pressing the SHIFT button, press the TITLE button.
Menu number appears on the PLAYER-1 time counter display, and mode number on the RECORDER time counter display.

---

3 Press the SHTL button and turn the search dial to select menu number.

---

4 Press the JOG button and turn the search dial to set the mode number.
• If two or more modes should be set in a menu, press the DMC button and turn the search dial to select a mode to be set.

Repeat steps 3 and 4.
When all items are set, press the TITLE button while pressing the SHIFT button, and the system setup mode is released.
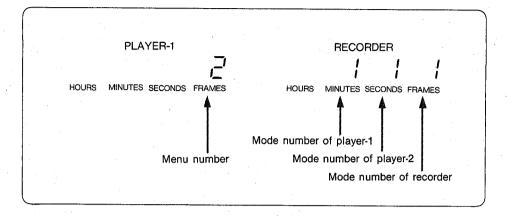
90

Setting drop frame or non-drop frame mode of time code (menu 1)

PLAYER-1   RECORDER

/   /

HOURS   MINUTES SECONDS FRAMES   HOURS   MINUTES SECONDS FRAMES

Menu number   Mode number
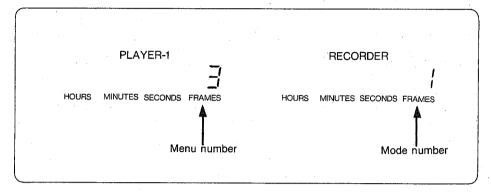
Mode number	Content
1	Drop frame
2	Non-drop frame

Setting synchronization accuracy (menu 2)

```
                 PLAYER-1                           RECORDER

                            ⊐'                        /    /    /
                            ⊏

       HOURS   MINUTES  SECONDS  FRAMES        HOURS   MINUTES  SECONDS  FRAMES




                                         Mode number of player-1
                    Menu number             Mode number of player-2

                                              Mode number of recorder
```

| Mode number	Content
1	ACCURATE Synchronization is carried out in ±0 frame accuracy. If synchronization cannot be completed after repeating the process three times from the preroll point to the IN point, the level will be automatically dropped to the next lower +/−1 FRAME level and synchronization is performed.
2	+/−1 FRAME Synchronization is carried out in ±1 frame accuracy. Editing will be executed if the margins of error for the check points are all within ±1 frame. If synchronization cannot be completed after repeating the process twice, the level is automatically dropped to the next lower ROUGH level.
3	ROUGH In the above two levels, monitoring is continued until the VTR is completely locked even after synchronization, and editing is executed only after accuracy is assured. In the ROUGH level, however, synchronization is considered completed if margin of error is absent on at least one occasion, and monitoring is terminated at that point. If synchronization cannot be achieved even once after two tries from the preroll point to the IN point, the level is automatically dropped to the next PREROLL & PLAY level.
4	PREROLL & PLAY Synchronization is not performed at this level. After preroll, the VTR enters the playback mode when the other VTRs begin synchronization.
5	PLAY ONLY Neither synchronization nor preroll is carried out. The VTR will enter the playback mode after the other VTR's preroll are completed.
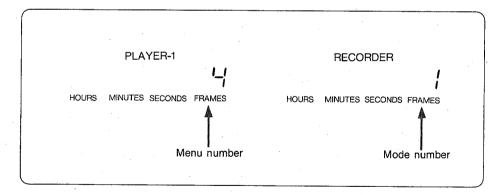
When LTC cannot be read with the CTL/TC/U-BIT selector set to TC, select the signal to interpolate the time code which cannot be read among from LTC, VITC or CTL.

PLAYER-1   RECORDER

HOURS   MINUTES SECONDS FRAMES   HOURS   MINUTES SECONDS FRAMES

Menu number   Mode number

Mode number	Content
1	LTC+ Usually LTC is employed, and CTL or the time counter is used as a supplement for speed in which LTC cannot be read (less than 1/8 normal speed) and where LTC drops out.
2	LTC:VITC+ This employs both the LTC and VITC, and switches between the two depending on the speed of the tape. CTL or the timer counter is used where drop out in the time code occurs.

Setting number of VTRs whose data are displayed on the monitor screen (menu 4)
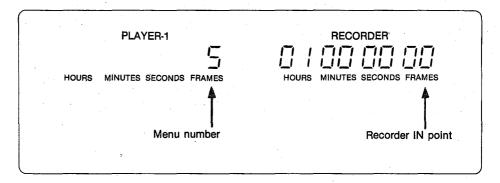
When the STATUS DISP switch is set to ON, the number of VTRs whose data are shown on a main monitor screen is set.

PLAYER-1   RECORDER

HOURS   MINUTES SECONDS FRAMES   HOURS   MINUTES SECONDS FRAMES

Menu number   Mode number

Mode number	Content
1	Data of a VTR selected by the VTR SELECT buttons is shown.
2	Data of all VTRs, player 1, player-2 and recorder, are shown.
3	The total time from the show start time is displayed added to the data in Mode 1.
4	The total time from the show start time is displayed added to the data in Mode 2.
5	The total time from the show start time is displayed.
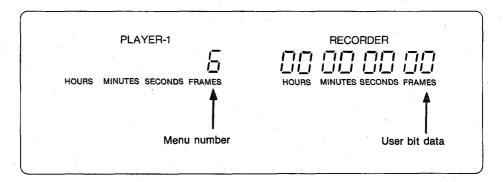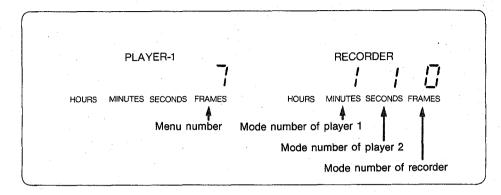
Setting the time code data of the recorder IN point for the first edit (menu 5)

```
              PLAYER-1                          RECORDER
                             5         01 00 00 00
        HOURS  MINUTES SECONDS FRAMES    HOURS  MINUTES SECONDS FRAMES
                             ↑                                 ↑
                             |                                 |
                        Menu number                      Recorder IN point
```

The data displayed in the figure above is the value set in the factory.

Setting the user bit (menu 6)

```
              PLAYER-1                          RECORDER
                             6         00 00 00 00
        HOURS  MINUTES SECONDS FRAMES    HOURS  MINUTES SECONDS FRAMES
                             ↑                                 ↑
                             |                                 |
                        Menu number                       User bit data
```

When the power is turned off, the user bit data is not memorized, but it is automatically set to the value shown in the figure above.

PLAYER-1   RECORDER

HOURS   MINUTES SECONDS FRAMES   HOURS   MINUTES SECONDS FRAMES

Menu number   Mode number of player 1

Mode number of player 2

Mode number of recorder

Mode number	Contents
0	Not effective
1	Effective

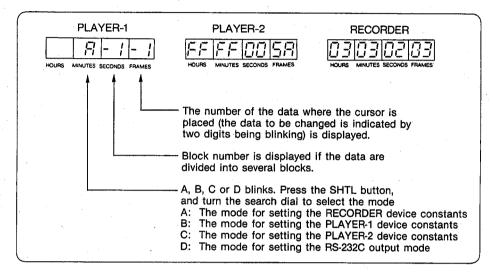The data displayed in the figure above is the value set in the factory.

Setting the VTR Device Constants and RS-232C Output Mode

The BVE-600 determines the type of VTR from the status signal sent from the connected VTRs, and tape transport is automatically controlled to match the VTR type. However, it is also possible to define a constant for tape transport correction for cases in which tape transport errors hindering editing arise as a result of conditions of use or problems inherent in setting.
When the RS-232C connector is used, the output mode should be set accrording to the operating conditions.

95

Entering the set mode

While pushing down the U-BIT/TC/CTL selector to U-BIT, turn the power on. And the mode to set the VTR device constants and RS-232C output mode can be obtained. To terminate the mode, turn the power off. When the power is turned on again, the BVE-600 enters the normal operating mode.
On the time counter displayes, the following displays appear.

The number of the data where the cursor is placed (the data to be changed is indicated by two digits being blinking) is displayed.

Block number is displayed if the data are divided into several blocks.

A, B, C or D blinks. Press the SHTL button, and turn the search dial to select the mode
A: The mode for setting the RECORDER device constants
B: The mode for setting the PLAYER-1 device constants
C: The mode for setting the PLAYER-2 device constants
D: The mode for setting the RS-232C output mode

Setting the VTR device constants

1 Press the SHTL button, and turn the search dial to select the VTR whose device constants are set by displaying the A, B or C on the MINUTES column of the PLAYER-1 time counter display.
   A: RECORDER
   B: PLAYER-1
   C: PLAYER-2

2 Press the DMC button, and turn the search dial to display the block number shown in the VTR mode setting tables in the SECONDS column of the PLAYER-1 time counter display.
   1: Block-1
   2: Block-2

3 Press the JOG button to select the data to be set (two digits are blinking), and turn the search dial to set the data.

4 Press the REC/REC OFF button to register the set data.

If there is more data to be set, repeat steps 3 and 4.

Note on data registration
If the REC/REC OFF button is not pressed after setting the data, the data is not registered.

VTR mode setting tables

Block-1

BYTE-1, 2 DEV TYPE	This sets the type of VTR (refer to VTR control constants chart). In normal cases where constant setting is not required, set both BYTE 1 and 2 to FF (UNDEFINED). (If a type differing from the VTR actually connected is designated, it is treated the same as UNDEFINED.)
BYTE-3, 4 CONST 1.2 (Min. Preroll Time)	This sets the minimum preroll time required by the VTR. This preroll time is in effect even a shorter time is set in the initial mode. Use hexadecimals to set the value of frames. (BYTE 3 indicates the higher digit, and BYTE 4, the lower.)
BYTE-5 CONST 3 (Edit Delay)	This corrects the time delay from when the REC command is sent to the VTR to when recording actually begins (in frame units).
BYTE-6 CONST 4 (EE Delay)	This corrects the time delay from when the PB/EE control command is sent to the VTR to when the VTR actually enters the preview mode (in frame units).
BYTE-7 CONST 5 (Overrun)	This corrects the excess time when the tape overruns the designated preroll point at preroll stop (in frame units).
BYTE-8 CONST 6 (Trajectory Const.)	This defines the optimum trajectory curve during preroll. (A VTR with a poorer convergency requires a larger value.)

Setting example of BYTE-3, 4

		Preroll time (seconds)							
		3	4	5	6	7	8	9	10
NTSC	BYTE-3	00	00	00	00	00	00	01	01
	BYTE-4	5A	78	96	B4	D2	F0	0E	2C
PAL	BYTE-3	00	00	00	00	00	00	00	00
	BYTE-4	4B	64	7D	96	AF	C8	E1	FA

Block 2

BYTE-1 CONST 7 (TC Read Delay)	This corrects the time delay from when the tape begins running to when the time code actually begins to be read out (in frame units).
BYTE-2 CONST 8 (Start Delay)	This corrects the time delay from when the play command is sent to the VTR to when it actually starts up (in frame units).
BYTE-3 CONST 9 (After-Sync Delay −)	This sets the optimum command delay time for servo lock in the correct position from the low-speed direction when the VTR enters the playback mode after synchronization (in frame units, complement)
BYTE-4 CONST 10 (After-Sync Delay +)	This sets the optimum command delay time for servo lock in the correct position from the high-speed direction when the VTR enters the playback mode after synchronization (in frame units)

BYTE-5
CONST 11
(Max.
Framing, CTL
(Timer)
Interpolation)
	Bits 7 to 1
	This sets the maximum fields allowed for the VTR to conform with its color framing system.
	   0 (2 field lock)
	   1 (4 field lock)
	   3 (8 field lock)
	The BVE-600 control the relevant VTR with the color framing set here regardless of the setting of the SYNCHRONIZE selector on the front panel.
	Bit 8
	This sets the possibility of the time code interpolation with the CTL or the timer counter depending on the VTR used.
	   1 (possible)
	   0 (impossible)

BYTE-6
CONST 12
(CF Status
Enable, Max.
Frame Lock
Time)
	Bit 1
	   1 (CF status from the VTR is valid)
	   0 (invalid)
	Bit 8 to 2
	This sets the maximum time required for frame lock of the VTR (in frame units).

BYTE-7 CONST 13 (Preroll Speed)	This sets the maximum SHUTTLE speed (n-time normal playback speed) in preroll (cue-up). If set to FF$_H$, the speed is controlled in FF/REW mode.

VTR control constants chart

GROUP-2, 3 / VTR	BLOCK-1 BYTE								BLOCK-2 BYTE							NOTE
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	
BVH-2000 (02)	00	10	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2000 (12)	00	10	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2000 (00)	00	11	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2000 (10)	00	11	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2000PM (02)	00	14	00	5A	06	06	03	0B	0A	06	FC	00	83	3D	FF	
BVH-2000PM (00)	00	15	00	5A	06	06	03	0B	0A	06	FC	00	83	3D	FF	
BVH-2180 (02)	00	18	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2180 (12)	00	18	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2180 (00)	00	19	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2180 (10)	00	19	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2180PM (02)	00	1C	00	5A	06	06	03	0B	0A	06	FC	00	83	3D	FF	
BVH-2180PM (00)	00	1D	00	5A	06	06	03	0B	0A	06	FC	00	83	3D	FF	
BVH-2500	00	20	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2700	00	30	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2800	00	40	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-2830	00	48	00	5A	06	06	03	0B	0A	06	FC	00	81	3D	FF	
BVH-3000	00	50	00	5A	06	06	07	10	0A	06	FC	00	81	3D	FF	
BVH-3100	00	60	00	5A	06	06	07	10	0A	06	FC	00	81	3D	FF	
BVH-2000PS (02/ 04/12/14)	01	10	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
	01	10	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
BVH-2000PS (00) /(10)	01	11	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
	01	11	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
BVH-2180PS (02)	01	18	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
BVH-2180PS (00)	01	19	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
BVH-2500PS	01	20	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
BVH-2800PS	01	40	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
BVH-2830PS	01	48	00	4B	06	06	03	0B	0A	06	FC	00	83	33	FF	
BVH-3000PS	01	50	00	4B	06	06	07	10	0A	06	FC	00	83	33	FF	
BVH-3100PS	01	60	00	4B	06	06	07	10	0A	06	FC	00	83	33	FF	
DVR-10	40	00	00	5A	07	07	04	12	0D	0B	FC	00	01	3D	FF	
DVR-10P	41	00	00	4B	07	07	04	12	0D	0B	FC	00	03	3D	FF	

VTR	BLOCK-1 BYTE 1	2	3	4	5	6	7	8	BLOCK-2 BYTE 1	2	3	4	5	6	7	NOTE
BVU-800	10	00	00	5A	03	03	02	03	0F	07	FF	00	00	78	FF	
BVU-820	10	01	00	5A	03	03	02	03	0F	07	FF	00	00	78	FF	
BVU-850	10	02	00	5A	03	03	02	03	0F	07	FF	00	00	78	FF	
BVU-870	10	03	00	5A	03	03	02	03	0F	07	FF	00	00	78	FF	
BVU-900	10	18	00	5A	08	08	03	06	0A	04	FF	00	00	78	FF	
BVU-950	10	1C	00	5A	08	08	03	06	0A	04	FF	00	00	78	FF	
BVU-800PM	10	00	00	5A	03	03	02	03	0F	07	FF	00	01	78	FF	
BVU-820PM	10	01	00	5A	03	03	02	03	0F	07	FF	00	01	78	FF	
BVU-800P	11	00	00	4B	03	03	02	03	0F	07	FF	00	01	64	FF	
BVU-820P	11	01	00	4B	03	03	02	03	0F	07	FF	00	01	64	FF	
BVU-850P	11	02	00	4B	03	03	02	03	0F	07	FF	00	01	64	FF	
BVU-870P	11	03	00	4B	03	03	02	03	0F	07	FF	00	01	64	FF	
BVU-900P	11	18	00	4B	08	08	03	06	0A	04	FF	00	01	64	FF	
BVU-950P	11	1C	00	4B	08	08	03	06	0A	04	FF	00	01	64	FF	
BVW-10	20	00	00	5A	05	05	02	02	0F	07	FB	00	81	3C	FF	
BVW-40	20	01	00	5A	05	05	02	02	0F	07	FB	00	81	3C	FF	
BVW-11	20	02	00	5A	05	05	02	03	1E	07	FB	00	81	3C	FF	
BVW-15	20	03	00	5A	05	05	02	02	23	07	FB	00	81	3D	FF	
BVW-35	20	10	00	B4	05	05	08	02	1E	0A	FF	00	81	3C	FF	
BVW-60	20	20	00	5A	05	05	03	0A	0C	07	FB	00	81	30	FF	
BVW-65	20	21	00	5A	05	05	03	0A	0C	07	FB	00	81	30	FF	
BVW-70	20	24	00	5A	05	05	03	0A	0C	07	FB	00	81	30	FF	
BVW-75	20	25	00	5A	05	05	03	0A	0C	07	FB	00	81	30	FF	
BVW-10P	21	00	00	4B	05	05	02	02	0F	07	FB	00	83	32	FF	
BVW-40P	21	01	00	4B	05	05	02	02	0F	07	FB	00	83	32	FF	
BVW-11P	21	02	00	4B	05	05	02	03	1E	07	FB	00	83	32	FF	
BVW-15P	21	03	00	4B	05	05	02	02	23	07	FB	00	83	33	FF	
BVW-35P	21	10	00	5A	05	05	08	02	1E	0A	FF	00	83	32	FF	
BVW-60P	21	20	00	4B	05	05	03	0A	0C	07	FB	00	83	3B	FF	
BVW-65P	21	21	00	4B	05	05	03	0A	0C	07	FB	00	83	3B	FF	
BVW-70P	21	24	00	4B	05	05	03	0A	0C	07	FB	00	83	3B	FF	
BVW-75P	21	25	00	4B	05	05	03	0A	0C	07	FB	00	83	3B	FF	
DVR-1000	30	00	00	5A	07	07	04	0B	0A	0F	FC	00	81	41	FF	525 mode
	31	00	00	4B	07	07	04	0B	0A	0F	FC	00	83	41	FF	625 mode

> **1** Press the SHTL button and turn the search dial to display D in the MINUTES column of the PLAYER-1 time counter display.

> **2** Press the JOG button to select the data to be set (two digits are blinking), and turn the search dial to set the data.

> **3** Press the REC/REC OFF button to registered the set data.

If there is more data to be set, repeat steps 2 and 3.

RS-232C set mode

Block-3

BAUD RATE
Cursor (1)
	This sets the baud rate.
	    00 (150) 04 (2.4K)
	    01 (300) 05 (4.8K)
	    02 (600) 06*(9.6K)
	    03 (1.2K) 07 (19.2K)

BYTE-2
S-2/1 D-8/7
P-E/D P-E/O
Cursor (2)
	This sets the data format.
	   Bit 4 Stop bit
	     0* (1 bit) 1 (2 bits)
	   Bit 3 Data length
	     0 (7 bits) 1* (8 bits)
	   Bit 2 Parity check
	     0* (disable) 1 (enable)
	   Bit 1 Parity
	     0* (odd) 1 (even)
	  • Bits 8–5 are invalid.

BYTE-3
FF-E/D
CHR-80/132
Cursor (3)
	This sets the output mode to the printer.
	   Bit 2 Form feed (page feed)
	     0* (disable) 1 (enable)
	   Bit 1 Characters per line
	     0 (132 characters) 1* (80 characters)
	  • Bits 8–3 are invalid.

* Values set at the factory.

Specifications

Edit functions

System	Microcomputer controlled automatic VTR editing system
CPU used	MC68000 (or equivalent)
Edit modes	Insert and assemble editing for video, audio 1 and audio 2
Editing reference	CTL, LTC SMPTE/EBU time code
Edit accuracy	±0 frame in time code operation
	±1 frame in CTL operation
Memory capacity	1 edit
Reference for split edit	Audio or video IN point
Transition time	0.0 to 9.9 seconds (in 0.1 second step)

Control systems

VTR interface	RS-422A 9-pin remote connector
Control VTRs	Recorder ×1
	Player ×2
Connectable VTRs	BVU-800/850/900/950 series
	BVW-10/15/40/60/65/70/75 series
	BVH-2000/2500/3000/3100 series
Remote control function	
	PLAY, STILL, REW, FF, STANDBY OFF, JOG, SHUTTLE, DMC, REC, ALL STOP
RS-232C interface	25-pin D-SUB connector
EDIT PULSE OUT	BNC type ×2 (T1 and T2 outputs)
Audio mixer interface	15-pin D-SUB connector for MXP-29
Switcher control	with BKE-611/612, BKE-621/622 optional switcher board
	Cut, wipe, dissolve, superimpose

General

Power sources	Model available in the United States and Canada:
	AC 90 V to 132 V
	Model available in other countries:
	AC 220 V to 240 V
	48 to 64 Hz
Power consumption	Maximum 110 W
Operating temperature	0°C to 45°C (32°F to 113°F)
Storage temperature	−40°C to +60°C (−4°F to +140°F)
Dimensions (w/h/d)	440×175×574 mm
	(17³⁄₈×7×22⁵⁄₈ inches)
Weight	11.6 kg (25 lb 9 oz) (BVE-600 only)
	13.8 kg (30 lb 7 oz) with optional BKE-611/612
	15.2 kg (33 lb 8 oz) with optional BKE-621/622
Supplied accessories	AC power cord (1)
	15-pin mixer control cable (1)
	Operation manual and maintenance manual (1 set)
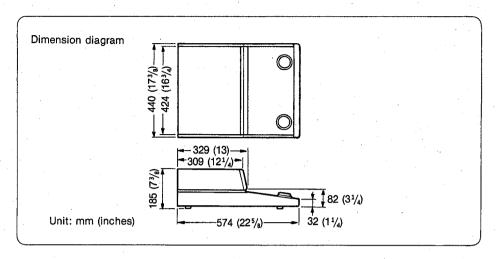
Design and specifications subject to change without notice.

Dimension diagram

440 (17³/₈)
424 (16³/₄)

329 (13)
309 (12¹/₄)

185 (7³/₈)

82 (3¹/₄)

Unit: mm (inches)

574 (22⁵/₈)

32 (1¹/₄)
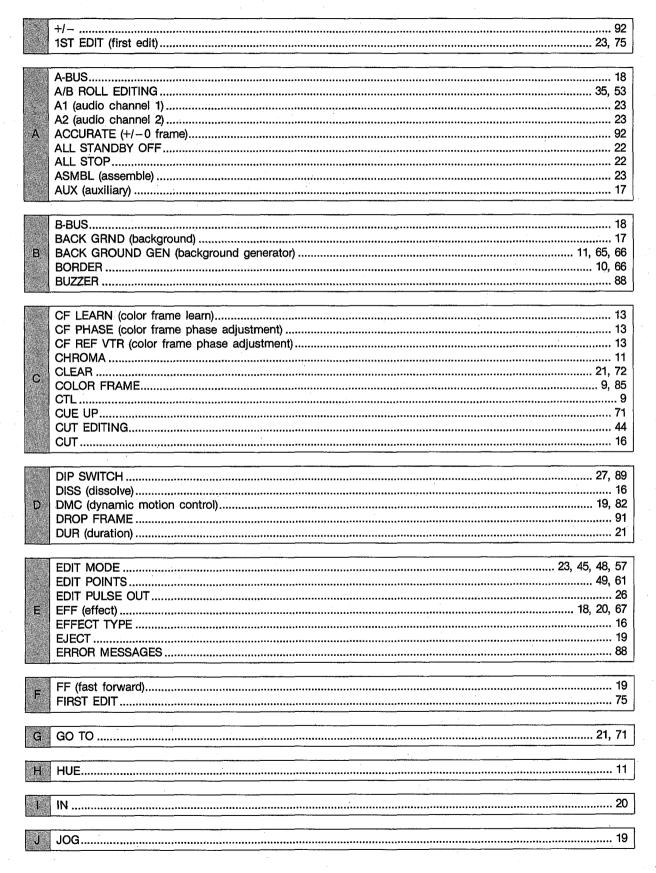
Optional accessories
Composite switcher board BKE-611 (for NTSC), BKE-612 (for PAL)
Component/composite switcher board BKE-621 (for NTSC), BKE-622 (for PAL)
Audio mixer control cable RCC-30A (15-pin D-SUB, 30 m)
Remote control cable RCC-5G/10G/30G (9-pin, 5m/10m/30m)

Index